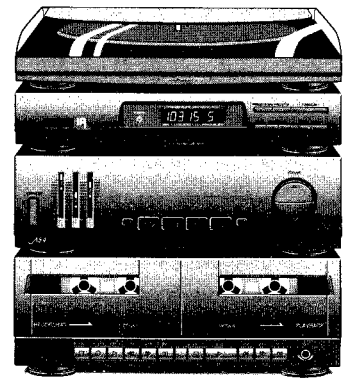
Midi System AS9410

/00/01/10/20/21/22/25/28/30/40/45/48

Service
Service
Service



Service Manual

For repair information of the cassette machanism
see Service Manual of Recorders tape deck RDN-7

For repair information of the Record player
see Service Manual of Record player HP7D277-1
(For -/22 verion only) see HP7D283MQ-1

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Documentation Technique Service Dokumentation Documentazione di Servizio Huolte-Ohje Manual de Servicio Manual de Servicio

PHILIPS

"Pour votre sécurité, ces documents doivent être utilisés par des spécialistes agréés, seuls habilités à réparer votre appareil en panne"

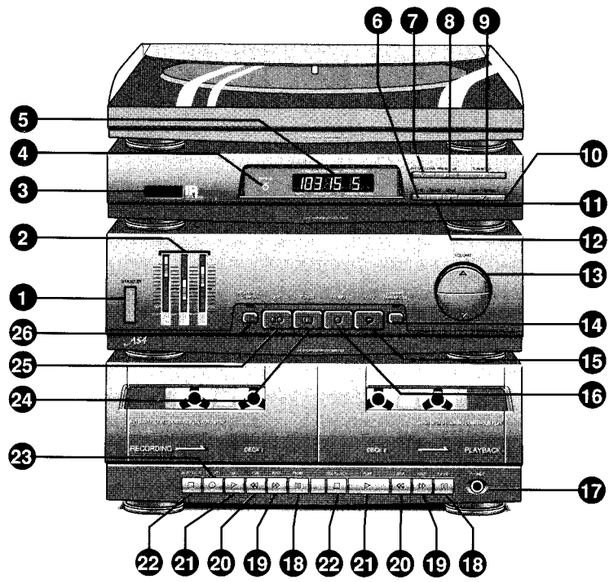
Subject to modification

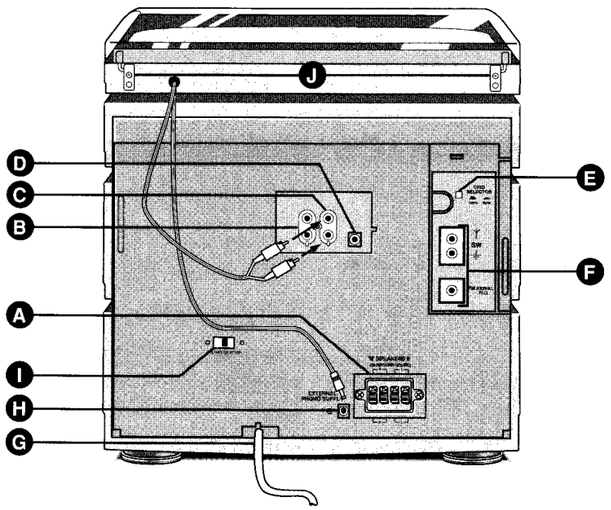
4822 725 23049

Printed in The Netherlands

PHILIPS

CONNECTIONS AND CONTROLS





1	Power switch	1263	19		F.Forward
2	Graphic equalizer	3507,3509	20		F.Rewind
		3511	21		Play
3	Infra red sensor	6420	22		Stop - Eject
4	Stand by indicator	6435	23		Record
5	Display	7400	24		Tuner 1404
6	Band selector	1406	25		Tape 1402
7	Preset down	1412	26		Dolby NR 1690
8	Preset up	1411	A		Speaker connection 1200
9	Tuning up	1407	B		CD/TV Input 1554
10	Tuning down	1410	C		Not applicable
11	Mono/Stereo	1408	D		RC output 1422
12	Program memo	1409	E	*	Grid selector 1105
13	Volume control	1510,1511	F		FM aerial socket 1100
14	DBB switch	1405	G		AC cord
15	CD/TV	1403	H		Not applicable
16	Phono	1401	I	*	Voltage selector 1025
17	Headphone	1258	J		Not applicable
18	Pause				

* For -/01/21 only

ADJUSTMENT	CASSETTE	SK...	Recorder position DECK I	DECK II	MEASURE ON	READ ON	ADJUST WITH	ADJUST TO
Azimuth	10KHz	Cass.	Play	-	1258	mV-meter	Left hand Screw Play head	Max.
	SBC 420*	Cass.	-	Play	1258	mV-meter	Left hand Screw R/P Head	L = R
Motor speed	3150Hz	Cass.	Play	-	1258	Wow and Flutter meter	preset in motor	** a
(Normal)	SBC 420*	Cass.	-	Play	1258	Wow and Flutter meter	-	

* SBC 420 : 4822 397 30071

** a The maximum permissible speed deviation is 2%.
Moreover, the wow and flutter value can be read.
This value should not exceed 0.35%.

SPECIFICATIONS

GENERAL

Mains voltage	:	120V - 220V - 240V 120V - 220V for /01/21 only
Mains selection/setting	:	Serviceable Set at 220V except /10/25/30/45 Set at 240V for -/10/25/30/45 only Switchable Set at 220V for /01/21 only
Mains frequency	:	50Hz - 60Hz
Power consumption	:	105W max.
Dimension centre unit	:	360 x 364.5 x 375 mm

TUNER : FM SECTION

Tuning range	:	87.5MHz - 108MHz
IF frequency	:	10.7MHz
Aerial input	:	75Ω coaxial Dipole for -/22 only
Sensitivity at 26dB S/N	:	<5µV
Selectivity at 600kHz bandwidth	:	>30dB
IF rejection	:	>60dB
Image rejection	:	>25dB

TUNER : AM SECTION

Tuning range	MW :	522kHz - 1611kHz
	LW :	148kHz - 284kHz for 3 band sets only
IF frequency	:	450kHz
Grid selector	:	9kHz - 10kHz for /01/21 only
Sensitivity at 26dB S/N	MW :	<3.0mV/M
	LW :	<4.0mV/M
Selectivity at 18kHz bandwidth	:	>20dB
IF rejection	:	>26dB
Image rejection	MW :	>28dB
	LW :	>30dB

AMPLIFIER

Output power at 10% distortion	:	2 x 15W -1dB
Speaker impedance	:	2 x 8Ω
Frequency response within ± 3dB	:	100Hz - 10kHz
Equalizer control	:	-6dB to +6dB
Dynamic bass boost	:	+6dB at 100Hz
Headphone output at 32Ω	:	30mW
Remote control output	:	5V non-inverted RC5
Input sensitivity	CD/TV :	400mV

CASSETTE RECORDER

Number of track	:	2 x 2 stereo
Tape speed	:	4.76 cm/sec ± 2%
Wow and flutter	:	<0.35%
Fast-wind time C60	:	130 sec
Bias system	:	74kHz ± 6kHz
Recording playback frequency response within -7dB	:	125Hz - 12.5kHz
Signal to noise ratio	Rec :	>50dB
	Dubbing :	>48dB

RECORD PLAYER

Type of drive system	:	Belt drive
Type of PU Head	:	Sapphire Diamond for -/22 only
Stylus force	:	5.0gmf +1.5gmf/-1gmf
Speed	:	33 1/3 ; 45 rpm ± 2.2%
Wow and flutter	:	0.3%
Rumble	:	-30dB DIN A
	:	-50dB DIN B

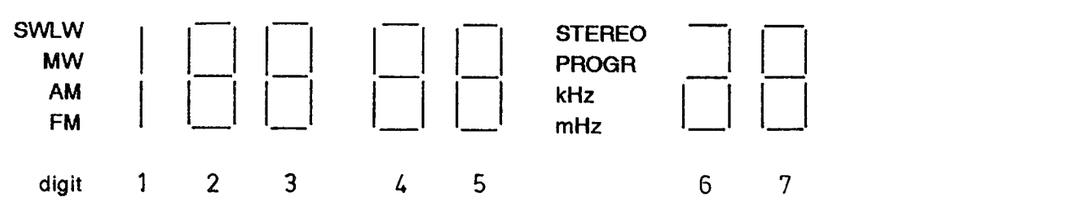
SELF-TEST PROCEDURE

When holding the program-key and preset- up key down during power up the EEROM is loaded after which the display lights completey until both keys are released.

The loaded information are as follows:

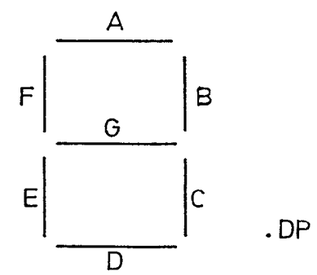
Preset	Frequency			Band
		POL	USA	
0	87.50	65.00	87.5	
1	97.00	65.00	106.5	
2	98.00	65.00	87.5	FM
3	99.00	65.00	87.5	
4	108.00	65.00	87.5	
			USA	
5	522		530	
6	567		580	
7	603		620	MW
8	1278		1370	
9	1494		1610	
10	1611			
11	148			
12	155			
13	200			LW
14	275			
15	284			
		EUR		
16	3820	5820		
17	3900	5900		SW
18	11900	13900		
19	12100	14100		

LCD Display

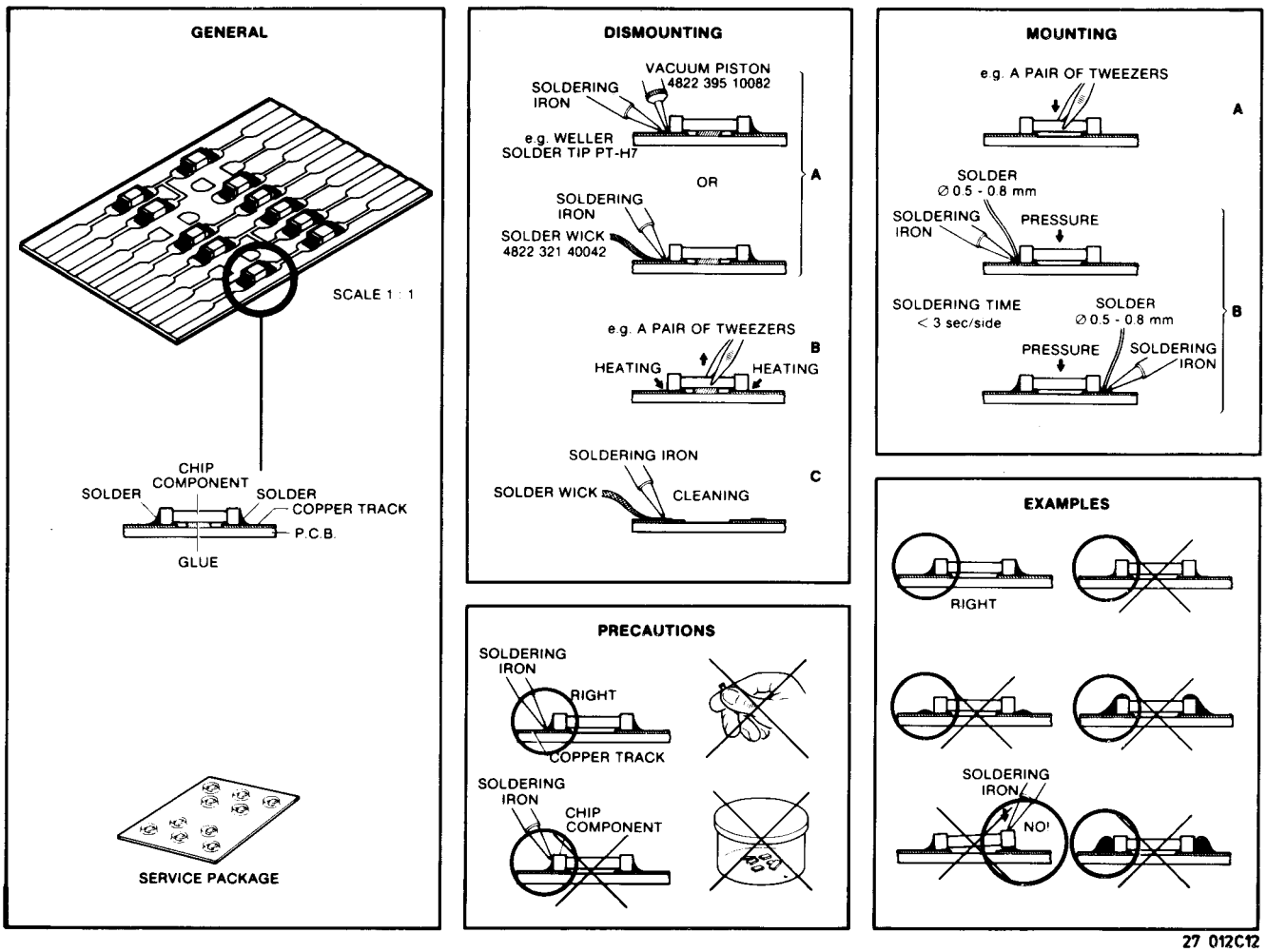


LCD Display / uProcessor interconnection

COM2	COM1	LCD Pin	uProc Pin
7C	7D	26	43
7G	7E	25	44
7B	7F	24	45
6B	7A	23	46
5C	5D	22	47
5G	5E	21	48
5B	5F	20	49
KHZ	5A	19	50
4C	4D	18	51
4G	4E	17	52
4B	4F	16	53
LW	4A	15	54
3C	3D	14	55
3G	3E	13	56
3B	3F	12	57
SW	3A	11	59
2C	2D	10	60
2G	2E	9	61
2B	2F	8	62
1BC	2A	7	63
MW	MHZ,FM,DP	6	64
PROGR	AM	5	1
STEREO	6ADG	4	2
6E	6C	3	3
COM2	-	2	5
-	COM1	1	4



HANDLING CHIP COMPONENTS



27 012C12

(GB)

Safety regulations require that the set be restored to its original condition and that parts which are identical with those specified, be used.

(NL)

Veiligheidsbepalingen vereisen, dat het apparaat bij reparatie in zijn oorspronkelijke toestand wordt teruggebracht en dat onderdelen, identiek aan de gespecificeerde, worden toegepast.

(F)

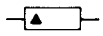
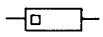
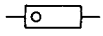
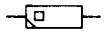
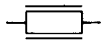
Les normes de sécurité exigent que l'appareil soit remis à l'état d'origine et que soient utilisées les pièces de rechange identiques à celles spécifiées.

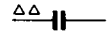
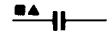
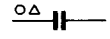
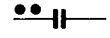
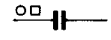
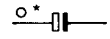
(D)

Bei jeder Reparatur sind die geltenden Sicherheitsvorschriften zu beachten. Der Originalzustand des Geräts darf nicht verändert werden; für Reparaturen sind Original-Ersatzteile zu verwenden.

(I)

Le norme di sicurezza esigono che l'apparecchio venga rimesso nelle condizioni originali e che siano utilizzati i pezzi di ricambio identici a quelli specificati.

	Carbon film 0.2 W CR16	70°C	5%
	Carbon film 0.33 W CR25	70°C	5%
	Carbon film 0.5 W CR37	70°C	5%
	Standard film 0.5 W SFR16T	70°C	5%
	Standard film 0.4 W SFR25	70°C	5%
	Metal film 0.6 W MRS25	70°C	5%
	Safety resistor		

	Plate ceramic Tuning < 120 pF Others	 2% —20/+80%
	Tubular ceramic	
	Polystyrene film / foil	1%
	Polyestor Film / foil	10%
	Mylar	10%
	Electrolytic	

(C) Chip component

* a = 2,5 V
b = 4 V
c = 6,3 V
d = 10 V
e = 16 V
f = 25 V
g = 40 V
h = 63 V
j = 100 V
l = 125 V
m = 150 V
n = 160 V
q = 200 V
r = 250 V
s = 300 V
t = 350 V
u = 400 V
v = 500 V
w = 630 V
x = 1000 V
A = 1,6 V
B = 6 V
C = 12 V
D = 15 V
E = 20 V
F = 35 V
G = 50 V
H = 75 V
I = 80 V

26338

(GB) WARNING

All ICs and many other semi-conductors are susceptible to electrostatic discharges (ESD).
Careless handling during repair can reduce life drastically.
When repairing, make sure that you are connected with the same potential as the mass of the set via a wrist wrap with resistance.
Keep components and tools also at this potential.

ESD

(NL) WAARSCHUWING

Alle IC's en vele andere halfgeleiders zijn gevoelig voor electrostatische ontladingen (ESD).
Onzorgvuldig behandelen tijdens reparatie kan de levensduur drastisch doen verminderen.
Zorg ervoor dat u tijdens reparatie via een polsband met weerstand verbonden bent met hetzelfde potentiaal als de massa van het apparaat.
Houd componenten en hulpmiddelen ook op ditzelfde potentiaal.

(F) ATTENTION

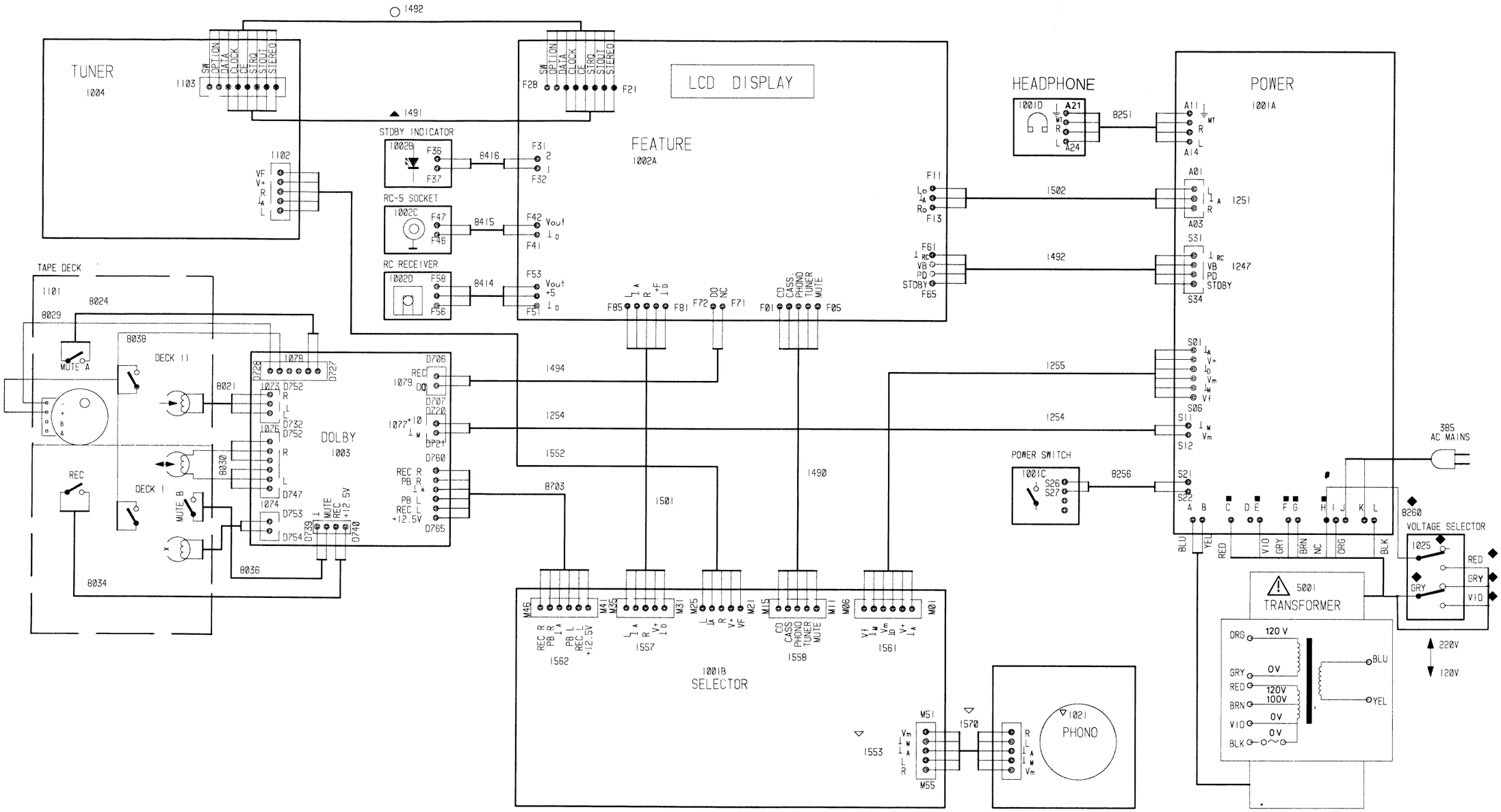
Tous les IC et beaucoup d'autres semi-conducteurs sont sensibles aux décharges statiques (ESD).
Leur longévité pourrait être considérablement écourtée par le fait qu'aucune précaution n'est prise à leur manipulation.
Lors de réparations, s'assurer de bien être relié au même potentiel que la masse de l'appareil et enfiler le bracelet serti d'une résistance de sécurité.
Veiller à ce que les composants ainsi que les outils que l'on utilise soient également à ce potentiel.

(D) WARNUNG

Alle ICs und viele andere Halbleiter sind empfindlich gegenüber elektrostatischen Entladungen (ESD).
Unsorgfältige Behandlung im Reparaturfall kan die Lebensdauer drastisch reduzieren.
Veranlassen Sie, dass Sie im Reparaturfall über ein Pulsarmband mit Widerstand verbunden sind mit dem gleichen Potential wie die Masse des Gerätes.
Bauteile und Hilfsmittel auch auf dieses gleiche Potential halten.

(I) AVVERTIMENTO

Tutti IC e parecchi semi-conduttori sono sensibili alle scariche statiche (ESD).
La loro longevità potrebbe essere fortemente ridatta in caso di non osservazione della più grande cauzione alla loro manipolazione.
Durante le riparazioni occorre quindi essere collegato allo stesso potenziale che quello della massa dell'apparecchio tramite un braccialetto a resistenza.
Assicurarsi che i componenti e anche gli utensili con quali si lavora siano anche a questo potenziale.



CONNECTOR (JST)

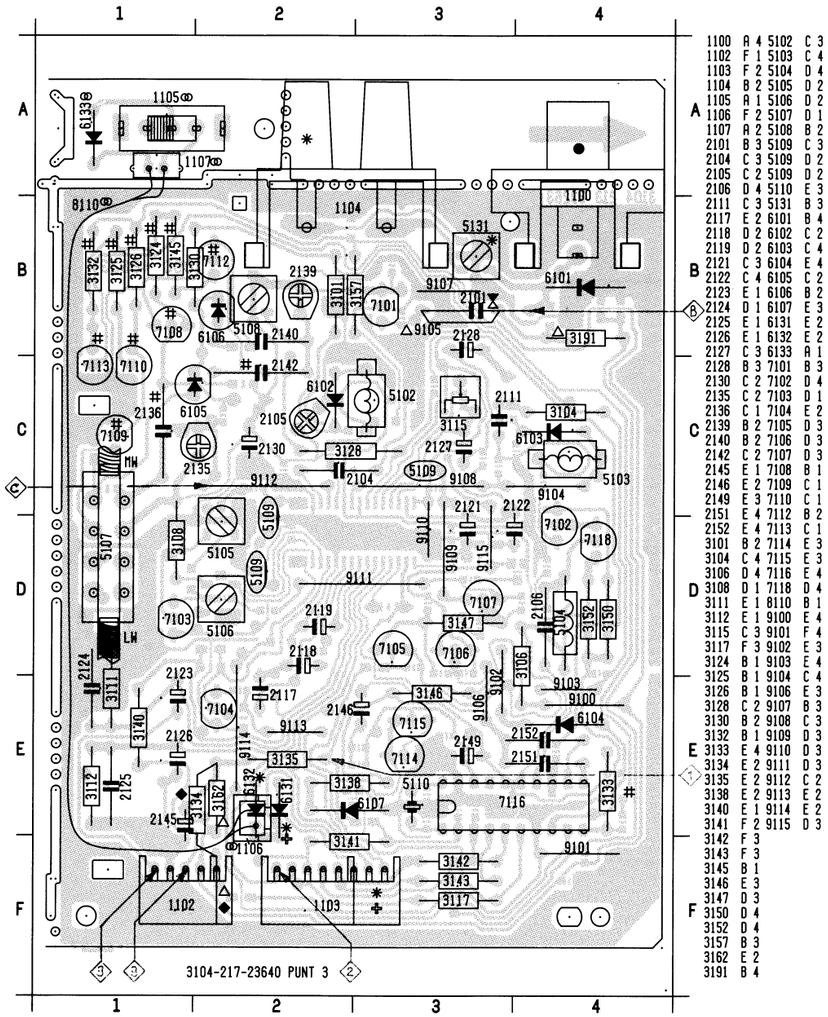
WIRE TRAP

▲ FOR -/20,-/22,-/25 & -/42
○ FOR -/21,-/28,-/30 & -/37
▽ NOT FOR AS9413
◆ FOR -/21 ONLY

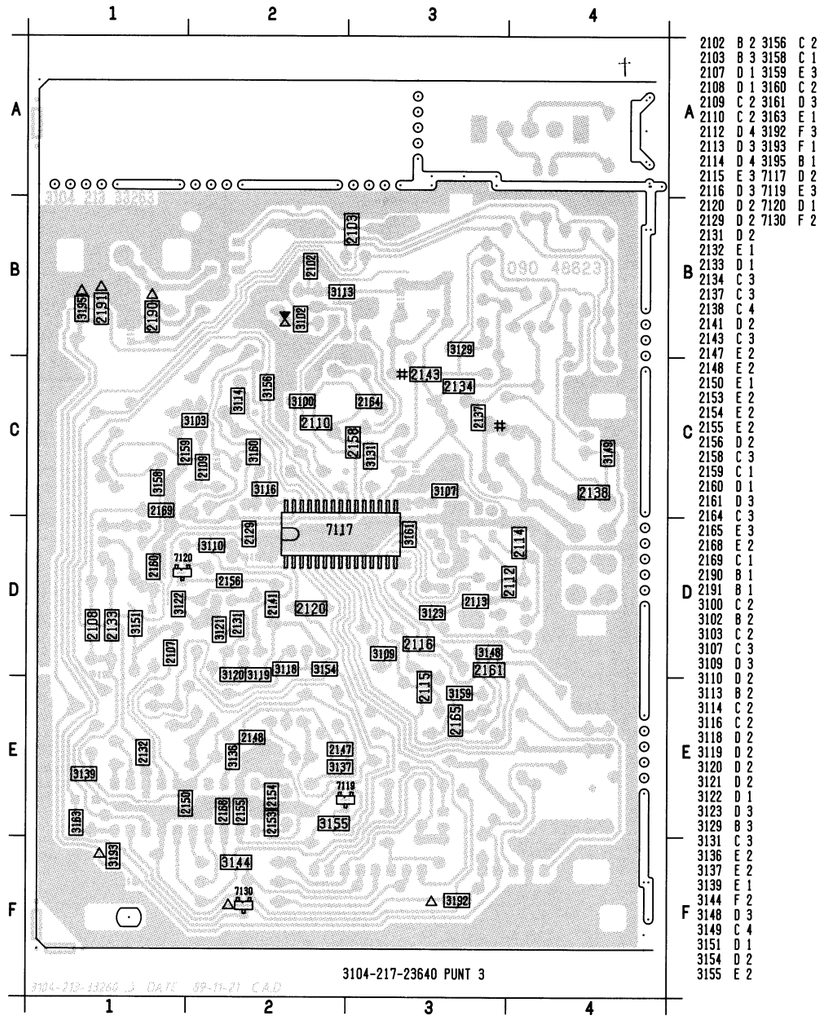
TRANSFORMER WIRE CONECTION

CONNECTION MARKED ■	AS9410/25 AS9410/30	AS9410/37	OTHERS	AS9410/21
C	BRN	BRN	AS SHOWN	NC
E	AS SHOWN	NC	AS SHOWN	NC
F	AS SHOWN	VIO	AS SHOWN	NC
G	RED	GRY	AS SHOWN	NC
H	AS SHOWN	**RED**	AS SHOWN	AS SHOWN

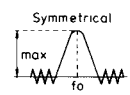
TUNER BOARD



△: ONLY FOR AUTOSTORE SETS (AS9600)
⧖: NOT FOR AUTOSTORE SETS
✱: ONLY FOR /17 UNITS
●: NOT FOR /17
#: NOT FOR /01 /10 AND /17 UNITS
✣: ONLY FOR /10 UNITS
◆: FOR EXTERNAL LOOPSUPPLY (AS9400)
(AS9500)
⊛: ONLY FOR /01 UNITS



△: ONLY FOR AUTOSTORE SETS (AS9600)
⧖: NOT FOR AUTOSTORE SETS
✱: ONLY FOR /17 UNITS
#: NOT FOR /10 AND /17 UNITS
✣: ONLY FOR /10 UNITS

SK...	FREQUENCY	I/P	DISPLAY	ADJUST	O/P	SCOPE/METER
Varicap alignment						
FM 87.5-108MHz			108MHz 87.5MHz	5103 check		8V 2.9V ± 0.3V
LW 148-284kHz			284kHz	5108		8.5V
MW 522-1611kHz (530-1700kHz)			1611kHz (1700kHz)	2139	1	7.8V # 8.5V + (8.0V)
			522kHz (530kHz)	5108		1.2V # (1.0V)
FM-RF						
FM	87.5MHz mod = 1kHz △f = 22.5kHz	B	87.5MHz	5102	3	max.
	108MHz mod = 1kHz △f = 22.5kHz		108MHz	2105		
Stereo decoder						
FM	98MHz carrier 1mV	B	98MHz	3115	2	76 ± 0.2kHz
AM-IF						
MW	450kHz $ △f = 10kHz 50Hz	C	522kHz (530kHz)	5106 5105	3	
AM-RF						
LW *	200kHz	A	200kHz	5107	3	max.
MW *	558kHz (560kHz)		558kHz (560kHz)	5107		
	1494kHz (1600kHz)		1494kHz (1600kHz)	2135		

* Mod 1kHz 30% AM
$ via 100nF
(..) Grid 10kHz for -/01/21 only
+ For LW version only
# Not for LW version

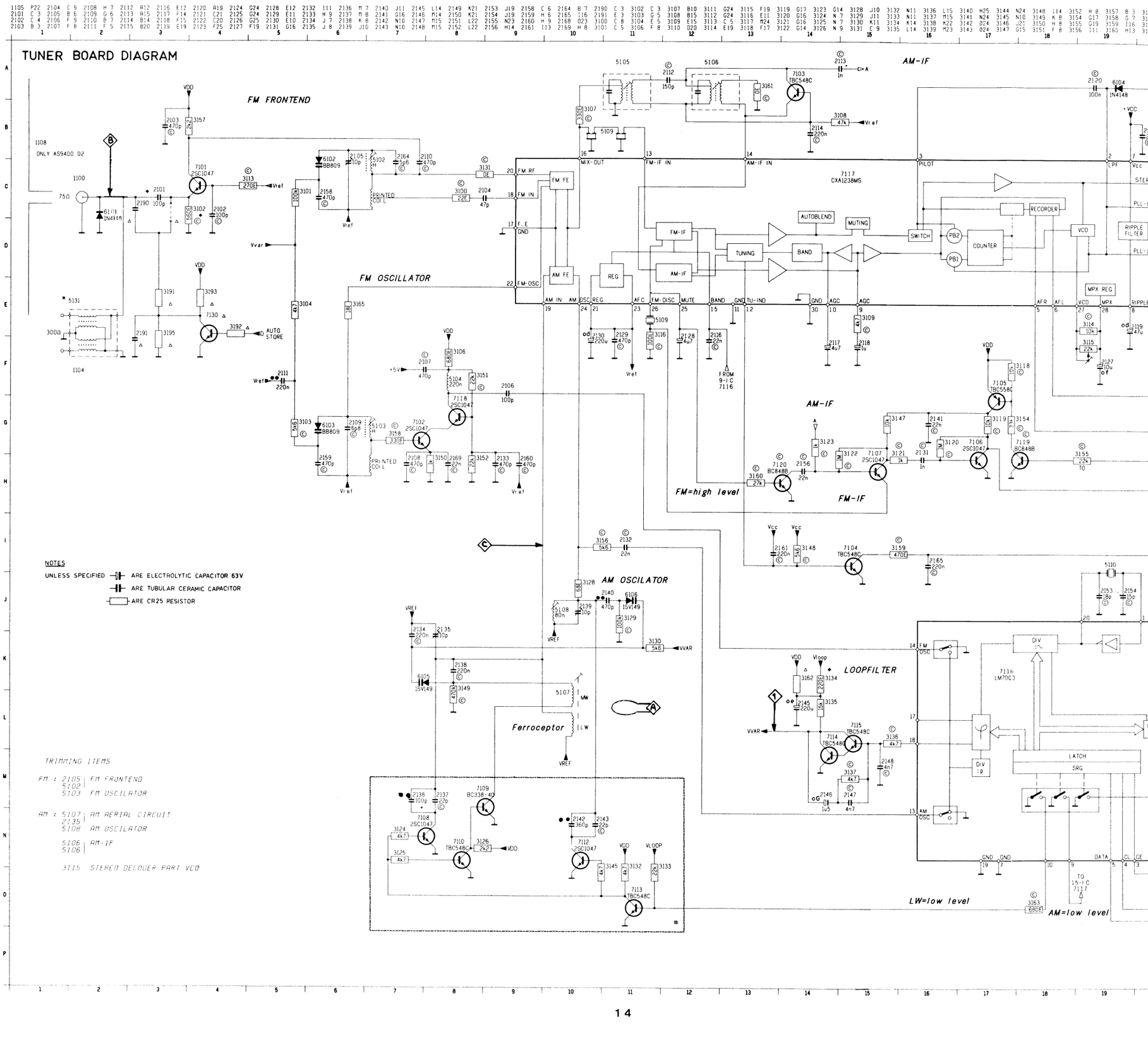
Repeat

+Vdd : 11.9V
+Vc : 7.4V FM
8.1V AM
Vref : 1.2V

	7116		7117	
	FM	AM	FM	AM
1 :	1.7V	1.7V	0V	1.0V
2 :	-	-	1.4V	1.5V
3 :	-	-	0.2V	1.0V
4 :	-	-	3.2V	3.2V
5 :	-	-	2.4V	2.4V
6 :	0.2V	4.9V	2.4V	2.4V
7 :	0V	0V	7.4V	8.1V
8 :	0.2V	0.2V	3.8V	3.8V
9 :	1.3V	0V	1.4V	1.3V
10 :	0.7V	0.7V	1.0V	1.2V
11 :	0.1V	0.1V	0V	0V
12 :	0.1V	0.1V	0.1V	0.2V
13 :	0.1V	1.8V	1.3V	0V
14 :	2.8V	0.1V	0V	0V
15 :	5.6V	5.7V	1.3V	0V
16 :	5.6V	5.7V	0.2V	0V
17 :	-	-	0V	0V
18 :	1.0V	1.0V	0.3V	0V
19 :	0V	0V	1.2V	1.2V
20 :	0.9V	0.9V	1.2V	1.2V
21 :			1.2V	1.2V
22 :			1.2V	1.2V
23 :			1.2V	1.2V
24 :			1.2V	1.2V
25 :			0.2V	0V
26 :			3.2V	3.8V
27 :			1.4V	1.4V
28 :			1.6V	1.6V
29 :			1.0V	1.0V
30 :			0V	0V

....V measured in tuner on postion

TUNER BOARD DIAGRAM



NOTES
UNLESS SPECIFIED — ARE ELECTROLYTIC CAPACITOR 63V
— ARE TUBULAR CERAMIC CAPACITOR
— ARE CR25 RESISTOR

TRIMMING ITEMS

FM : 2105 | FM FRONTEND
5102 |
5103 | FM OSCILATOR

AM : 5107 | AM AERIAL CIRCUIT
2135 |
5108 | AM OSCILATOR

5106 | AM-IF
5106 |

3115 STEREO DECODER PART VCO

DIAGRAM

FM FRONTEND

FM OSCILLATOR

AM-IF

FM-IF

AM OSCILATOR

LOOPFILTER

Ferroceptor

7117 CXA1238MS

FM=high level

TUNED=high level

LW=low level

AM=low level

STEREO=low level

FROM 9-I C 7116

TO 15-I C 7117

AUTO STORE

NOT LW

USA

AS9400
AS9500
AS9600
AS9604
AH807
AH808
AH809

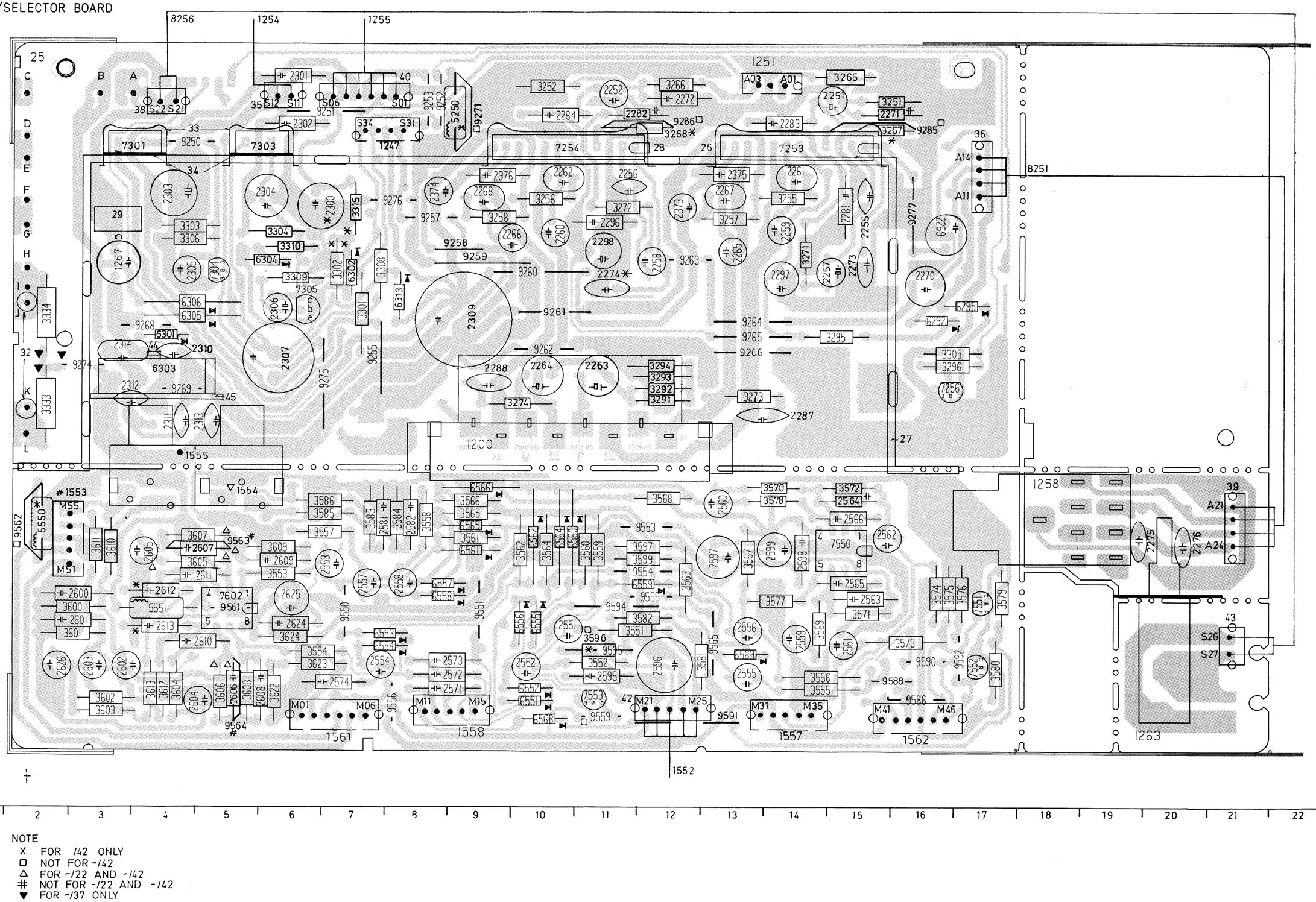
RF PART

- ARE ELECTROLYTIC CAPACITOR 63V
- ARE TUBULAR CERAMIC CAPACITOR
- ARE CR25 RESISTOR

NOT FOR /10 AND /17 /01 UNITS
● NOT FOR AUTOSTORE SETS
✱ ONLY FOR /17 UNITS
△ ONLY FOR AUTOSTORE SETS
+ ONLY FOR /10 UNITS
● ONLY FOR /01 UNITS

NTEND
ILATOR
IAL CIRCUIT
ILATOR
-DECODER PART VCO

POWER/SELECTOR BOARD



NOTE
- X FOR /42 ONLY
- □ NOT FOR -/42
- △ FOR -/22 AND -/42
- # NOT FOR -/22 AND -/42
- ▼ FOR -/37 ONLY
- ● FOR AS9413 ONLY
- ▽ NOT FOR AS9413

0025	B2	2373	D12
0026	C13	2376	D12
0027	H16	2374	D12
0028	C12	2375	D12
0029	D3	2377	D12
0032	F2	2378	D12
0033	C4	2379	D12
0034	C4	2380	D12
0035	B5	2381	D12
0036	C17	2382	D12
0038	B4	2383	D12
0039	J12	2384	D12
0040	B8	2385	D12
0042	M11	2386	D12
0043	L21	2387	D12
0044	F4	2388	D12
0045	G5	2389	D12
1200	H9	2390	D12
1247	C8	2391	D12
1251	B13	2392	D12
1254	A6	2393	D12
1255	A7	2394	D12
1258	H18	2395	D12
1263	M20	2396	D12
1267	E3	2397	D12
1552	N12	2398	D12
1553	J3	2399	D12
1554	J5	2400	D12
1555	H5	2401	D12
1557	M14	2402	D12
1558	M9	2403	D12
1561	M7	2404	D12
1562	M16	2405	D12
2251	B15	2406	D12
2252	B11	2407	D12
2255	D15	2408	D12
2256	C11	2409	D12
2257	E15	2410	D12
2258	E12	2411	D12
2259	D14	2412	D12
2260	D10	2413	D12
2261	C14	2414	D12
2262	C10	2415	D12
2263	F11	2416	D12
2264	F10	2417	D12
2265	E13	2418	D12
2266	D10	2419	D12
2267	D13	2420	D12
2268	D9	2421	D12
2269	D16	2422	D12
2270	E16	2423	D12
2271	B16	2424	D12
2272	B12	2425	D12
2273	E15	2426	D12
2274	E11	2427	D12
2275	J19	2428	D12
2276	J20	2429	D12
2281	D15	2430	D12
2282	B12	2431	D12
2283	C14	2432	D12
2284	C10	2433	D12
2287	G14	2434	D12
2288	F9	2435	D12
2296	D11	2436	D12
2298	E11	2437	D12
2300	D7	2438	D12
2301	B6	2439	D12
2302	C6	2440	D12
2303	D4	2441	D12
2304	D6	2442	D12
2305	E4	2443	D12
2306	F6	2444	D12
2307	F6	2445	D12
2309	E9	2446	D12
2310	F5	2447	D12
2311	G4	2448	D12
2312	G3	2449	D12
2313	G5	2450	D12
2314	F3	2451	D12

	0025	B2	2374	D8	3552	L11	6564	J10
	0026	C13	2375	C13	3553	K6	6565	J9
	0027	H16	2376	C9	3554	L6	6566	H9
A	0028	C12	2551	L10	3555	M14	6568	M10
	0029	D3	2552	L10	3556	M14	7253	C14
	0032	F2	2553	K7	3557	J7	7254	C10
	0033	C4	2554	L7	3558	J8	7256	G16
	0034	C4	2555	L13	3559	K11	7301	C3
	0035	B5	2556	L13	3560	K11	7303	B5
B	0036	C17	2557	K7	3561	J9	7304	E5
	0038	B4	2558	K8	3562	J10	7305	E6
	0039	J12	2559	L14	3563	K12	7550	J15
	0040	B8	2560	J13	3564	J10	7551	K17
	0042	M11	2561	L15	3565	J9	7552	L17
	0043	L21	2562	J15	3566	J9	7553	M11
C	0044	F4	2563	K15	3567	K13	7602	K5
	0045	G5	2564	J15	3568	J12	8251	C18
	1200	H9	2565	K15	3569	L14	8256	A4
	1247	C8	2566	J15	3570	J14	9250	C4
	1251	B13	2571	M9	3571	K15	9251	B7
	1254	A6	2572	L9	3572	H15	9252	B8
D	1255	A7	2573	L9	3573	L16	9253	B8
	1258	H18	2574	M7	3574	K16	9255	F7
	1263	M20	2581	J7	3575	K16	9257	D8
	1267	E3	2582	J8	3576	K17	9258	E8
	1552	N12	2595	L11	3577	K14	9259	E9
	1553	J3	2596	L12	3578	J14	9260	E10
E	1554	J5	2597	K13	3579	K17	9261	E10
	1555	H5	2598	K14	3580	L17	9262	F10
	1557	M14	2599	J14	3581	L13	9263	E12
	1558	M9	2600	K3	3582	L12	9264	F13
	1561	M7	2601	L3	3583	J7	9265	F13
	1562	M16	2602	L3	3584	J8	9266	F13
F	2251	B15	2603	L3	3585	J7	9268	F4
	2252	B11	2604	M5	3586	J7	9271	C9
	2255	D15	2605	J4	3596	L11	9274	F3
	2256	C11	2606	M5	3597	J12	9275	G7
	2257	E15	2607	J5	3599	K12	9276	D8
	2258	E12	2608	M6	3600	K3	9277	D16
G	2259	D14	2609	K6	3601	L3	9285	C16
	2260	D10	2610	L5	3602	M3	9286	C12
	2261	C14	2611	K5	3603	M3	9550	K7
	2262	C10	2612	K4	3604	M4	9551	K9
	2263	F11	2613	L4	3605	K5	9553	J12
	2264	F10	2624	L6	3606	M5	9554	K12
H	2265	E13	2625	K6	3607	J5	9555	K12
	2266	D10	2626	L2	3608	M5	9556	M8
	2267	D13	3251	B16	3609	J6	9559	M11
	2268	D9	3252	B10	3610	J3	9560	J5
	2269	D16	3255	D14	3611	J3	9561	K5
	2270	E16	3256	D10	3612	M4	9562	J2
J	2271	B16	3257	D13	3613	M4	9565	M5
	2272	B12	3258	D9	3622	M6	9565	L13
	2273	E15	3265	B15	3623	L6	9586	M16
	2274	E11	3266	B12	3624	L6	9588	M16
	2275	J19	3267	C16	5250	C9	9590	L16
	2276	J20	3268	C12	5550	J2	9591	M13
K	2281	D15	3271	E14	5551	K4	9592	L17
	2282	B12	3272	D11	6292	F16	9594	K11
	2283	C14	3273	G13	6295	F17	9595	L11
	2284	C10	3274	G10	6301	F4		
	2287	G14	3291	G12	6302	E7		
	2288	F9	3292	G12	6303	G4		
L	2296	D11	3293	F12	6304	E6		
	2298	E11	3294	F12	6305	F4		
	2300	D7	3295	F15	6306	F4		
	2301	B6	3296	F16	6313	F8		
	2302	C6	3301	F7	6551	M10		
	2303	D4	3302	E7	6552	M10		
M	2304	D6	3303	D4	6553	L7		
	2305	E4	3304	D6	6554	L7		
	2306	F6	3305	F16	6555	L10		
	2307	F6	3306	E4	6556	L10		
	2309	E9	3308	E7	6557	K8		
	2310	F5	3309	E6	6558	K8		
	2311	G4	3310	E6	6559	K12		
N	2312	G3	3315	D7	6560	J10		
	2313	G5	3333	G2	6561	J9		
	2314	F3	3334	F2	6562	J10		
	2373	D12	3551	L11	6563	L13		

V+ : 12.5V
Vc : 19.0V

7304

e : 0Vgrd
b : 0.7Vsn
0Vsf
c : 0Vsn
8.8Vsf

7305

e : 0Vgrd
b : 0.7Vsn
0Vsf
c : 0Vsn
1.3Vsf

7256

e : 0Vgrd
b : 0.8Vsn
0Vsf
c : 0Vsn
20.8Vsf

7301

1 : 0Vsn
8.8Vsf
2 : 19.0V
3 : 10.0V

7303

1 : 0Vsn
11.3Vsf
2 : 0.7Vsn
0Vsf
3 : 12.5V

7253/54

1 : 4.0V
2 : 1.2V
3 : 0V
4 : 0V
5 : 1.2V
6 : 3.9Vsn
21.8Vsf
7 : 17.0V
8 : 10.0V
9 : 0V
10 : 10.0V
11 : 17.0V
12 : 19.0V
13 : 5.8V
14 : 5.8V
15 : 5.8V
16 : 11.8V

7550

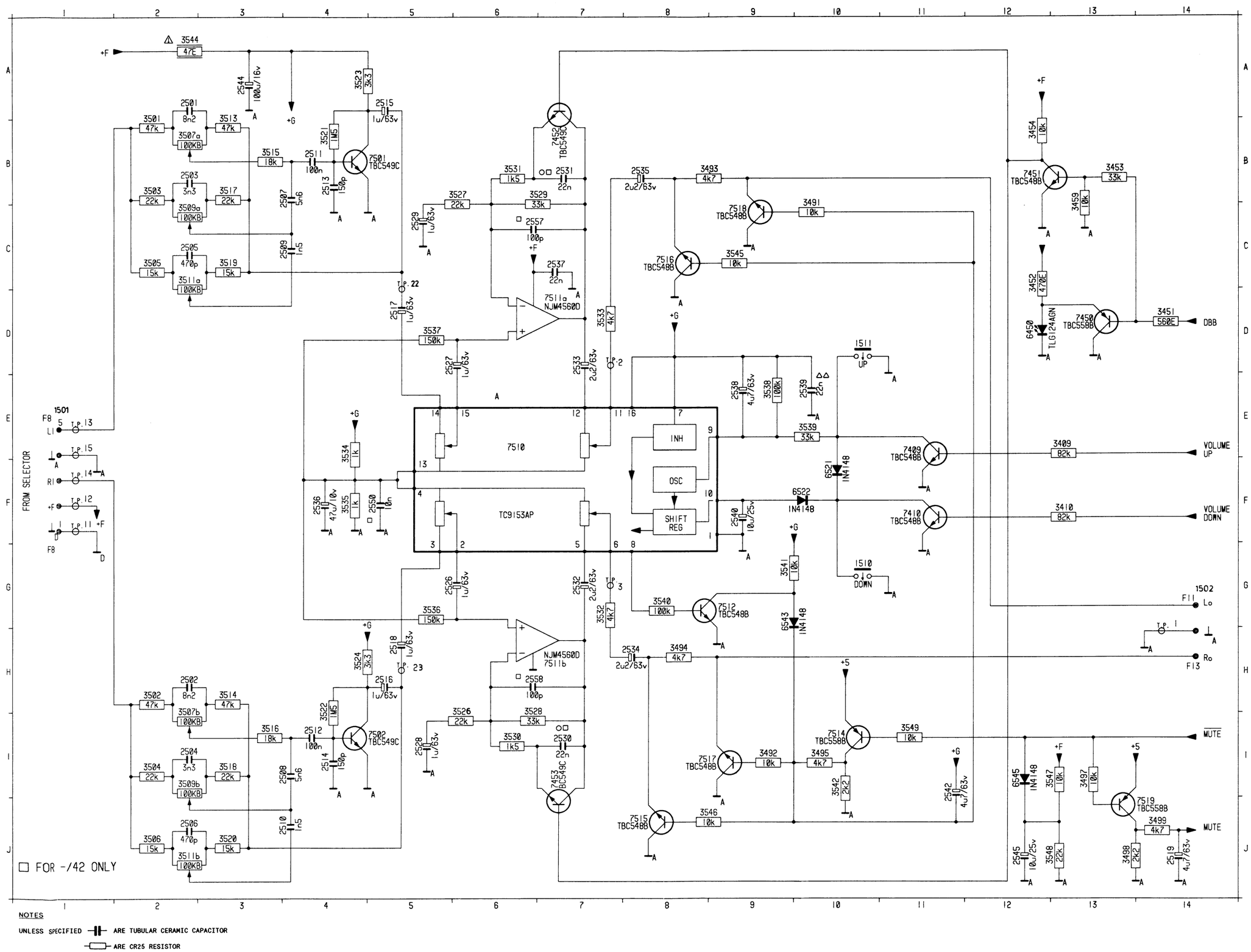
1 : 3.7V
2 : 3.7V
3 : 3.7V
4 : 0V
5 : 3.7V
6 : 3.7V
7 : 9.8V
8 : 3 7V

7602

1 : 6.2V
2 : 6.2V
3 : 6.2V
4 : 0V
5 : 6.2V
6 : 6.2V
7 : 6.2V
8 : 10.0V

....V measured in tape on position
....Vsn measured in standby on position
....Vsf measured in standby off position
....Vgrd measured in ground position

FRONT BOARD DIAGRAM II



NOTES

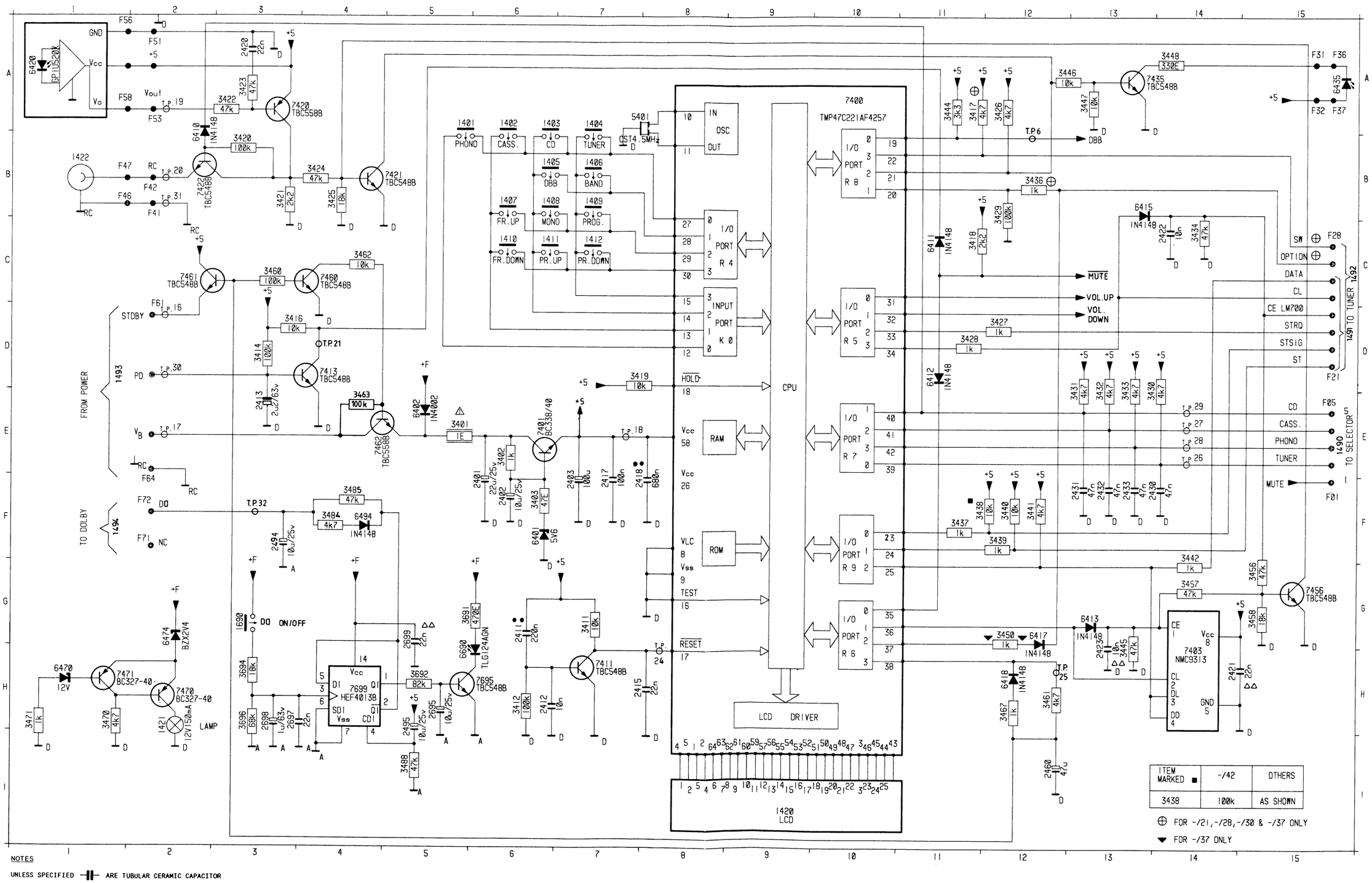
UNLESS SPECIFIED ARE TUBULAR CERAMIC CAPACITOR

ARE CR25 RESISTOR

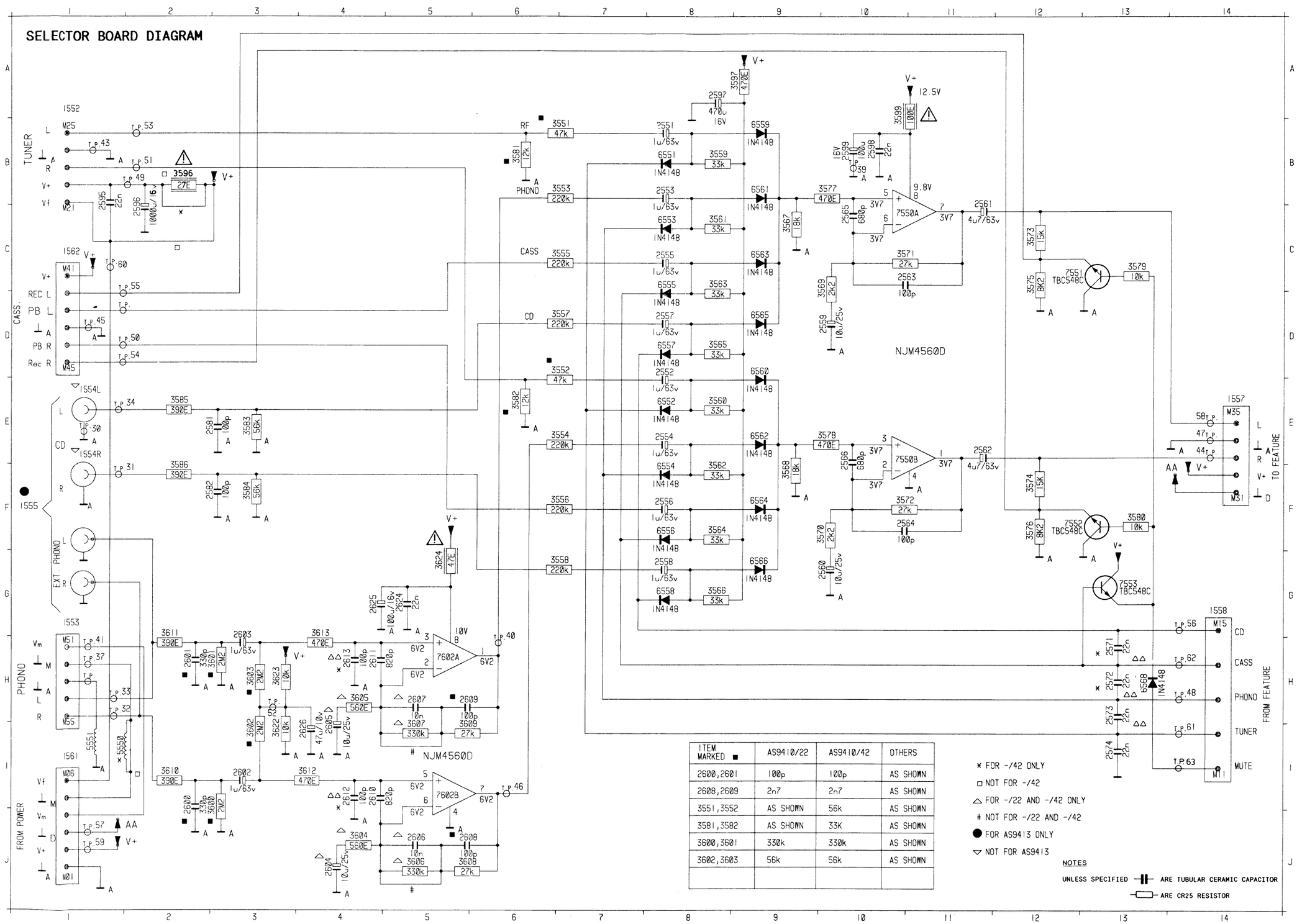
1510 G10
1511 D10
2501 A2
2502 H2
2503 B2
2504 I2
2505 C2
2506 J2
2507 B4
2508 I4
2509 C4
2510 J4
2511 B4
2512 I4
2513 B4
2514 I4
2515 A5
2516 I5
2517 B5
2518 I5
2519 C5
2526 G5
2527 D5
2528 I5
2529 C5
2530 J5
2531 B7
2532 G7
2533 D7
2534 H8
2535 B8
2536 F8
2537 C9
2538 E9
2539 E10
2540 F9
2542 I11
2544 A3
2545 J12
2550 F5
2557 C6
2558 H6
3409 E13
3410 F13
3451 D14
3452 C12
3453 B13
3454 B12
3459 B13
3491 C10
3492 I9
3493 B9
3494 H8
3495 I10
3497 I13
3498 J13
3499 J14
3501 B2
3502 H2
3503 B2
3504 I2
3505 C2
3506 J2
3507a B2
3507b I2
3509a C2
3509b I2
3511a C2
3511b J2
3513 B3
3514 H3
3515 B3
3516 I3
3517 B3
3518 I3
3519 C3
3520 J3
3521 B4
3522 H4
3523 A4
3524 I4
3526 I6
3527 B6
3528 I6
3529 B7
3530 I6
3531 B6
3532 G7
3533 D7
3534 E4
3535 F4
3536 G5
3537 D5
3538 E9
3539 E10
3540 G8
3541 G9
3542 I10
3544 A2
3545 C9
3546 J9
3547 I13
3548 J13
3549 I11
6450 D12
6521 F10
6522 F10
6543 G9
6545 I12
7409 E11
7410 F11
7450 D13
7451 B12
7452 B7
7453 I7
7501 B5
7502 I5
7510 E6
7511a D7
7511b H6
7512 G9
7514 J10
7516 C8
7517 I8
7518 C8
7519 J14
1501 E1
1502 G14

FRONT BOARD DIAGRAM I

1401	A 5	1407	B 6	1421	H 2	1420	I 9	2418	F 8	2431	F13	2695	H 5	3403	F 6	3418	C11	3424	B 4	3430	D13	3437	F11	3444	A11	3456	G15	3463	F 4	3488	I 5	6401	F 6	6415	B13	6474	G 2	7403	H14	7435	A13	7471	H 1	1490	E15
1402	A 6	1408	B 6	1422	B 1	2411	G 6	2420	A 8	2432	F13	2697	H 3	3411	G 7	3419	D 7	3425	B 4	3431	D13	3438	F11	3445	G15	3457	G14	3467	H12	3691	G 5	6402	E 5	6417	G12	6494	F 4	7411	H 7	7456	G15	7695	H 6	1491	D15
1403	A 6	1409	B 7	1690	G 3	2412	H 6	2421	H14	2433	F13	2698	H 3	3412	H 6	3420	B 3	3426	A12	3432	D13	3439	F12	3446	A12	3458	G15	3470	H 1	3692	H 5	6410	B 2	6418	H12	6590	H 5	7413	D 4	7460	K 4	7699	H 4	1492	C15
1404	A 7	1410	C 6	2401	F 6	2413	E 3	2422	C14	2460	I12	2699	G 5	3414	D 3	3421	B 3	3427	D12	3433	D13	3440	F12	3447	A13	3460	C 3	3471	H 1	3694	H 5	6411	C11	6420	A 1	7400	A10	7420	A 3	7461	K 2			1493	D 1
1405	B 6	1411	C 6	2402	F 6	2416	H 8	2423	G13	2494	F 3	3401	E 5	3416	D 3	3422	A 3	3428	D12	3434	C14	3441	F12	3448	A14	3461	H12	3484	F 4	3696	H 5	6412	D11	6435	A15	7401	E 6	7421	B 4	7462	E 4			1494	F 1
1406	B 7	1412	C 7	2403	F 7	2417	F 7	2430	F14	2495	H 5	3402	E 6	3417	A11	3423	A 3	3429	B12	3436	B12	3442	F14	3450	G12	3462	C 4	3485	F 4	5401	A 7	6413	G13	6470	H 1			7422	B 2	7470	H 2				



SELECTOR BOARD DIAGRAM



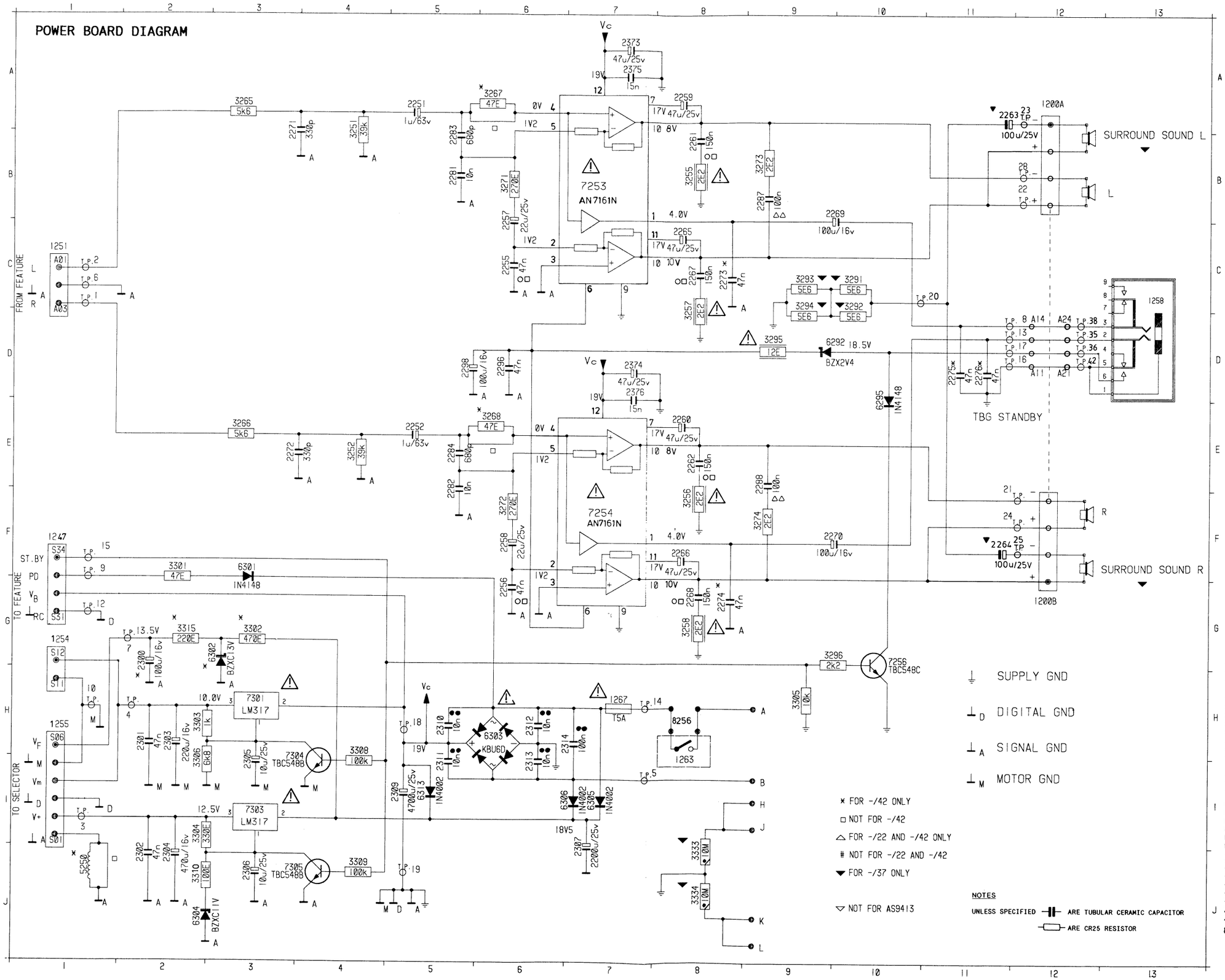
ITEM MARKED ■	AS9410/22	AS9410/42	OTHERS
2600,2601	100p	100p	AS SHOWN
2608,2609	2n7	2n7	AS SHOWN
3551,3552	AS SHOWN	56k	AS SHOWN
3581,3582	AS SHOWN	33K	AS SHOWN
3600,3601	330k	330k	AS SHOWN
3602,3603	56k	56k	AS SHOWN

× FOR -/42 ONLY
□ NOT FOR -/42
△ FOR -/22 AND -/42 ONLY
NOT FOR -/22 AND -/42
● FOR AS9413 ONLY
▽ NOT FOR AS9413

NOTES
UNLESS SPECIFIED —||— ARE TUBULAR CERAMIC CAPACITOR
—▭— ARE CR25 RESISTOR

1552 A I
1553 G I
1554L E I
1554R E I
1555 E I
1557 E I4
1558 G I4
1561 I I
1562 C I
2551 C B8
2552 D B8
2553 B E8
2554 E C8
2555 C F8
2556 F D8
2557 D G8
2558 G D10
2559 D G10
2560 G E11
2561 E H3
2571 H I3
2572 H I3
2573 H I3
2574 I I3
2581 F I3
2582 B F3
2595 B I2
2596 A B8
2597 B I0
2598 B I0
2599 I H2
2600 H I2
2601 H I3
2602 H I3
2603 H I4
2604 J I4
2605 J I4
2606 H J4
2607 H J5
2608 H J5
2609 H J5
2610 I H4
2611 H I4
2612 I H4
2613 H I4
2624 G J5
2625 G I4
2626 I I4
3551 B I7
3552 B I7
3553 C B7
3554 B I7
3555 C B7
3556 B I7
3557 D B7
3558 B I7
3559 B E9
3560 D E9
3561 B F9
3562 E F9
3563 C F9
3564 F F9
3565 D F9
3566 G F9
3567 C I10
3568 E I10
3569 C I10
3570 E I10
3571 C I13
3572 F I13
3573 G I13
3574 I I13
3575 B I5
3576 B I5
3577 B B2
3578 E B2
3579 B B2
3580 E B2
3581 I I
3582 I I
3583 I I
3584 I I
3585 I I
3586 I I
3596 B 2
3597 B 2
3599 B 2
3602 I I
3603 I I
3604 I I
3605 I I
3606 I I
3607 I I
3608 I I
3609 I I
3610 I I
3611 I I
3612 I I
3613 I I
3622 I I
3623 I I
3624 I I
5550 I I
5551 I B
6551 B B
6552 E B
6553 C B
6554 F B
6555 C B
6556 F B
6557 D B
6558 G B
6559 B B
6560 D B
6561 B B
6562 F B
6563 C B
6564 G B
6565 D B
6566 G B
7550A C I0
7550B E I0
7551 C I3
7552 F I3
7553 G I3
7602A H I5
7602B I I5

POWER BOARD DIAGRAM



+F : 12.5V
+G : 11.2V
+5 : 5.4V

7435	7450	7451	7695
e : 0Vgrd	e : 2.1Vdn	e : 0Vgrd	e : 0Vgrd
b : 0.7Vsn	0.9Vdf	b : 0.6Vdn	b : 0.8Vdn
0Vsf	b : 5.6Vdn	0Vdf	0Vdf
c : 0Vsn	0Vdsf	c : 0Vdn	c : 0.2Vdn
4.2Vsf	c : 0Vgrd	6.5Vdf	11.0Vdf

7401	7402	7409
e : 5.4V	e : 0V	e : 0V
b : 6.0V	b : 0.7V	b : 0V
c : 11.8V	c : 5.8V	c : 11.5V

7410	7411	7413
e : 0V	e : 0V	e : 0V
b : 0V	b : 0V	b : 0V
c : 11.5V	c : 5.4V	c : 5.3V

7420	7421	7422
e : 5.4V	e : 0V	e : 0V
b : 5.3V	b : 0V	b : 0V
c : 0V	c : 5.4V	c : 0V

7460	7462	7470
e : 0V	e : 21.9V	e : 9.0V
b : 0V	b : 21.6V	b : 8.2V
c : 21.7V	c : 11.8V	c : 8.9V

7471	7501	7502
e : 9.0V	e : 0V	e : 0V
b : 8.4V	b : 0.7V	b : 0.7V
c : 8.2V	c : 5.8V	c : 5.8V

7510	7511
1 : 0V	1 : 5.8V
2 : 5.8V	2 : 5.7V
3 : 5.8V	3 : 5.7V
4 : 5.8V	4 : 0V
5 : 0V	5 : 5.7V
6 : 5.8V	6 : 5.8V
7 : 11.8V	7 : 5.8V
8 : 0V	8 : 5.4V
9 : 11.6V	
10 : 11.7V	
11 : 5.8V	
12 : 5.8V	
13 : 5.8V	
14 : 5.8V	
15 : 5.8V	
16 : 11.8V	

....V	measured in tape on position
....Vsn	measured in standby on position
....Vsf	measured in standby off position
....Vdn	measured in DBB on position
....Vdf	measured in DBB off position
....Vgrd	measured in ground position

0050	B2	1412	M7	2418	L15	2511	G18	2539	E4	3410	J10	3434	F10	3460	J19	3505	G21	3531	H8	5401	J14	7401	J22	7510	E3	9408	D4	9435	C12	9457	F13	9485	G19	9515	H20
0051	K14	1420	M15	2420	L20	2512	G20	2540	E2	3411	J16	3436	F11	3461	J19	3506	G21	3532	D5	6401	J21	7403	M10	7511	F6	9409	F5	9436	C14	9458	F13	9486	G20	9517	C20
0052	K14	1421	L14	2421	L10	2513	G17	2542	E10	3412	J16	3437	G10	3462	H19	3507	E24	3533	D5	6402	H22	7409	H3	7512	C2	9410	E5	9437	L12	9459	F13	9487	D19	9518	M7
0053	B6	1422	K24	2422	F10	2514	G19	2544	E17	3414	K17	3438	G10	3463	H19	3509	E23	3534	D3	6410	L11	7410	H2	7514	E8	9411	D5	9438	M12	9460	F13	9488	B19	9519	L9
0054	B23	1490	J1	2423	L9	2515	G16	2545	F7	3416	K17	3439	G10	3467	J19	3511	E22	3535	D3	6411	J17	7411	H16	7515	B8	9413	D6	9439	J12	9461	E13	9489	C20	9522	J10
0055	K24	1491	A9	2430	J3	2516	G16	2550	D3	3417	G11	3440	G10	3470	L17	3513	D23	3536	E5	6412	H17	7413	J16	7516	B5	9415	C6	9440	J12	9463	E13	9490	J23	9523	D18
0056	L20	1492	A12	2431	J3	2517	G16	2551	G6	3418	K17	3441	L10	3471	L18	3514	D23	3537	H5	6413	L9	7420	M20	7517	C7	9416	E7	9441	J12	9468	L15	9491	J23	9525	G14
0057	F11	1493	J25	2432	J3	2518	F15	2552	E5	3419	J14	3442	G11	3484	C20	3515	E20	3538	F3	6415	F10	7421	L18	7518	B8	9417	E8	9443	H12	9469	J15	9494	B22	9526	J7
0059	M24	1494	A20	2433	J3	2519	H7	2553	G6	3420	L19	3444	G14	3485	D20	3516	E20	3539	F3	6417	G11	7422	M20	7519	E12	9419	D8	9444	H13	9470	J15	9496	D24	9527	F9
0060	H2	1501	A24	2460	G20	2526	E5	2554	E5	3421	L19	3445	L9	3488	E15	3517	D22	3540	C2	6418	H18	7435	H18	7695	C18	9421	K9	9445	H13	9471	M16	9497	C24	9528	E11
0061	B20	1510	D4	2494	B21	2527	F4	2555	G6	3422	L19	3446	K18	3491	C8	3518	D22	3541	C2	6420	M22	7450	C10	7699	E16	9422	J9	9446	J12	9472	M17	9498	E22	9530	E9
1401	C13	1511	G4	2495	E15	2528	E7	2556	E6	3423	L20	3447	J18	3492	C7	3519	D21	3542	C8	6435	H25	7451	F8	8414	L21	9423	J9	9446	J14	9473	L15	9499	H17		
1402	C17	1520	A7	2501	E23	2529	G7	2557	H7	3424	L19	3448	J18	3493	C6	3520	D21	3544	F18	6450	D9	7452	G8	8415	M23	9424	J9	9447	H14	9474	L16	9500	L17		
1403	C11	1690	C19	2502	E23	2530	D6	2558	E6	3425	L18	3450	J11	3494	B6	3521	G18	3545	C7	6470	L18	7453	E7	8416	H24	9425	J10	9448	H14	9476	F17	9501	L14		
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1405	C9	2402	K21	2504	E22	2532	E5	2697	E16	3427	J11	3452	C10	3497	E11	3523	G18	3547	F8	6494	C19	7460	H18	9401	H3	9428	J11	9450	H14	9478	G18	9503	G17		
1406	K7	2403	K20	2505	E21	2533	F3	2698	D15	3428	J11	3453	E9	3498	E12	3524	G19	3548	F8	6521	G3	7461	H20	9402	G3	9429	J11	9451	H13	9479	L18	9505	B7		
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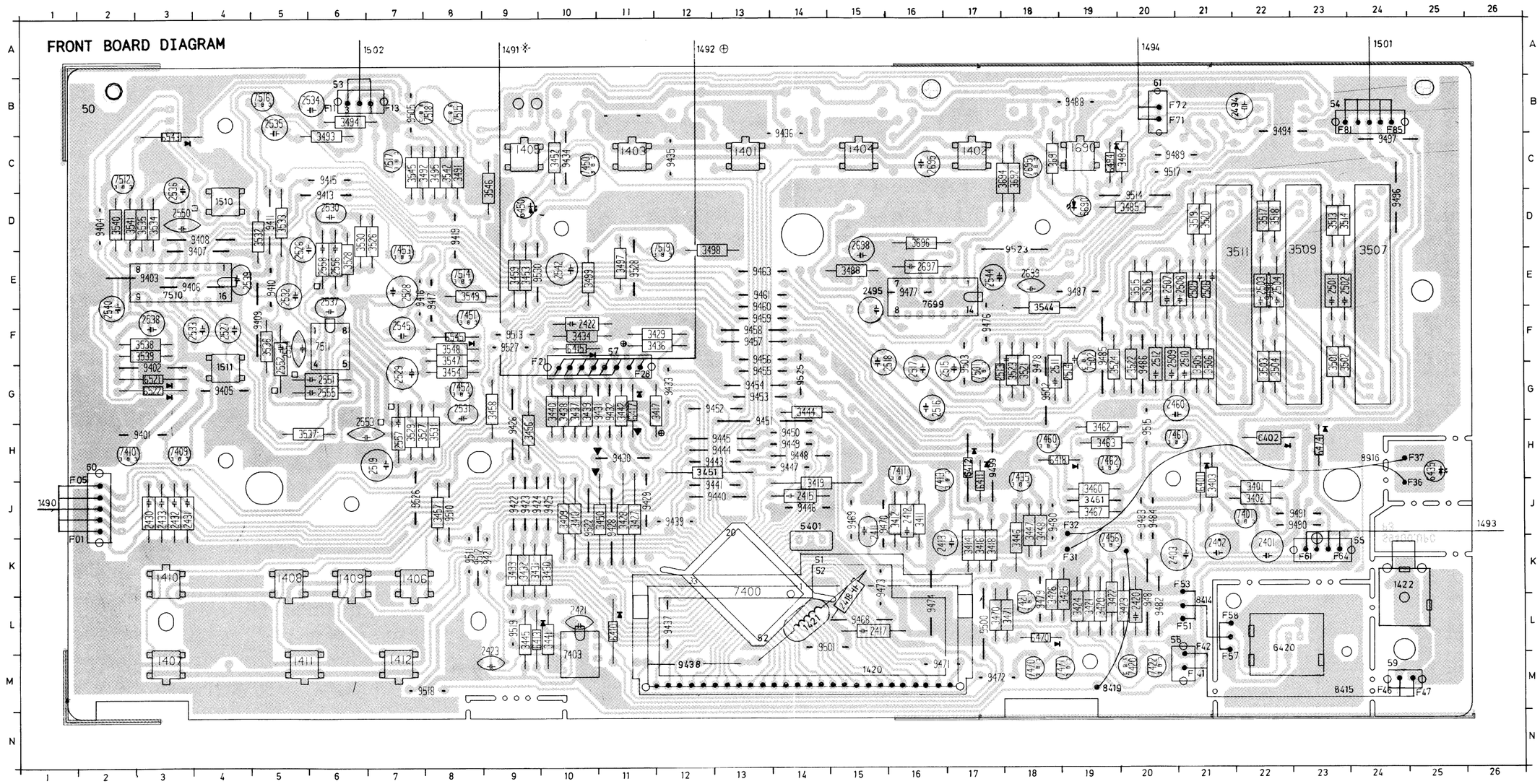
1408	K5	2412	J16	2507	E20	2535	B5	3401	J22	3430	K10	3456	H9	3501	G23	3527	H7	3691	C18	6543	C3	7470	M18	9404	C2	9431	G10	9453	G13	9481	L20	9511	K8		
1409	K6	2413	K16	2508	E21	2536	C3	3402	J22	3431	K9	3457	J8	3502	G23	3528	E6	3692	C18	6545	F8	7471	M18	9405	G4	9432	G11	9454	G13	9482	L20	9512	K8		
1410	K3	2415	J14	2509	G20	2537	E6	3403	J21	3432	K9	3458	G9	3503	G22	3529	H7	3694	C18	6690	D19	7501	G17	9406	E3	9433	G12	9455	G13	9483	J20	9513	F9		
1411	M5	2417	L15	2510	G21	2538	F3	3409	J10	3433	K9	3459	E9	3504	G22	3530	D6	3696	D16	7400	K13	7502	G19	9407	E4	9434	C10	9456	F13	9484	J20	9514	D20		



RECORDER BOARD

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1073	E	2	2732	D	2	3728	E	3	9053	E	8
1074	B	2	2733	C	3	3730	C	3	9054	E	4
1076	E	3	2734	C	3	3731	C	3	9055	E	2
1077	F	4	2736	E	7	3732	C	3	9056	B	2
1078	F	6	2737	E	7	3736	E	6	9057	A	2
1079	E	8	2741	C	4	3737	E	6	9058	C	3
2540	D	8	2742	C	5	3738	E	6	9059	B	2
2551	E	6	2743	C	4	3739	E	7			
2552	E	5	2744	C	5	3742	F	6			
2553	E	6	2745	C	4	3743	C	3			
2554	E	5	2746	B	5	3744	E	8			
2555	C	5	2748	D	5	3745	E	8			
2556	D	5	2749	D	5	3747	E	3			
2557	C	5	2750	D	5	3748	E	3			
2558	D	6	2751	E	5	3749	C	2			
2561	C	7	3541	D	8	3754	D	6			
2562	D	7	3551	E	3	3756	D	4			
2563	C	6	3552	E	3	3757	D	4			
2564	D	6	3553	E	5	3758	D	4			
2566	D	6	3554	E	4	3759	D	4			
2567	C	5	3555	E	5	3763	F	6			
2569	D	6	3556	E	4	3785	E	8			
2570	D	6	3557	D	5	3786	E	8			
2571	C	6	3558	D	5	3787	E	8			
2575	C	8	3559	C	6	3795	B	1			
2576	B	4	3560	C	7	3796	B	1			
2577	A	4	3561	C	7	3797	C	6			
2578	B	4	3562	C	7	3798	C	6			
2579	A	4	3565	C	7	5010	E	3			
2580	B	4	3566	C	8	5011	E	2			
2581	A	3	3567	C	6	5012	C	2			
2582	B	3	3568	D	5	5601	E	1			
2583	A	3	3571	A	4	5602	E	2			
2584	B	3	3572	B	5	5603	E	5			
2585	A	3	3573	A	4	5604	E	4			
2586	B	3	3574	B	4	5605	B	4			
2589	A	4	3575	A	5	5606	B	5			
2590	B	4	3576	B	5	5701	C	2			
2595	B	4	3577	A	4	6706	E	8			
2601	A	3	3578	B	4	6707	D	8			
2602	B	3	3579	A	3	6708	E	8			
2603	A	2	3580	B	3	6710	D	9			
2604	B	2	3581	A	3	6711	D	8			
2605	A	2	3582	B	3	6712	D	8			
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2611	D	1	3601	B	2	7555	B	4			
2612	D	1	3602	B	3	7556	B	3			
2701	D	4	3603	A	2	7701	D	3			
2702	D	3	3604	B	2	7704	A	8			
2705	D	2	3605	A	2	7705	E	6			
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2716	D	1	3709	D	4	9018	A	6			
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2719	C	3	3711	C	4	9021	C	4			
2721	C	4	3714	C	2	9022	B	7			
2722	C	4	3715	D	1	9023	B	6			
2723	C	4	3716	C	1	9024	D	7			
2724	C	4	3717	C	4	9025	D	7			
2725	D	4	3718	C	4	9030	B	1			
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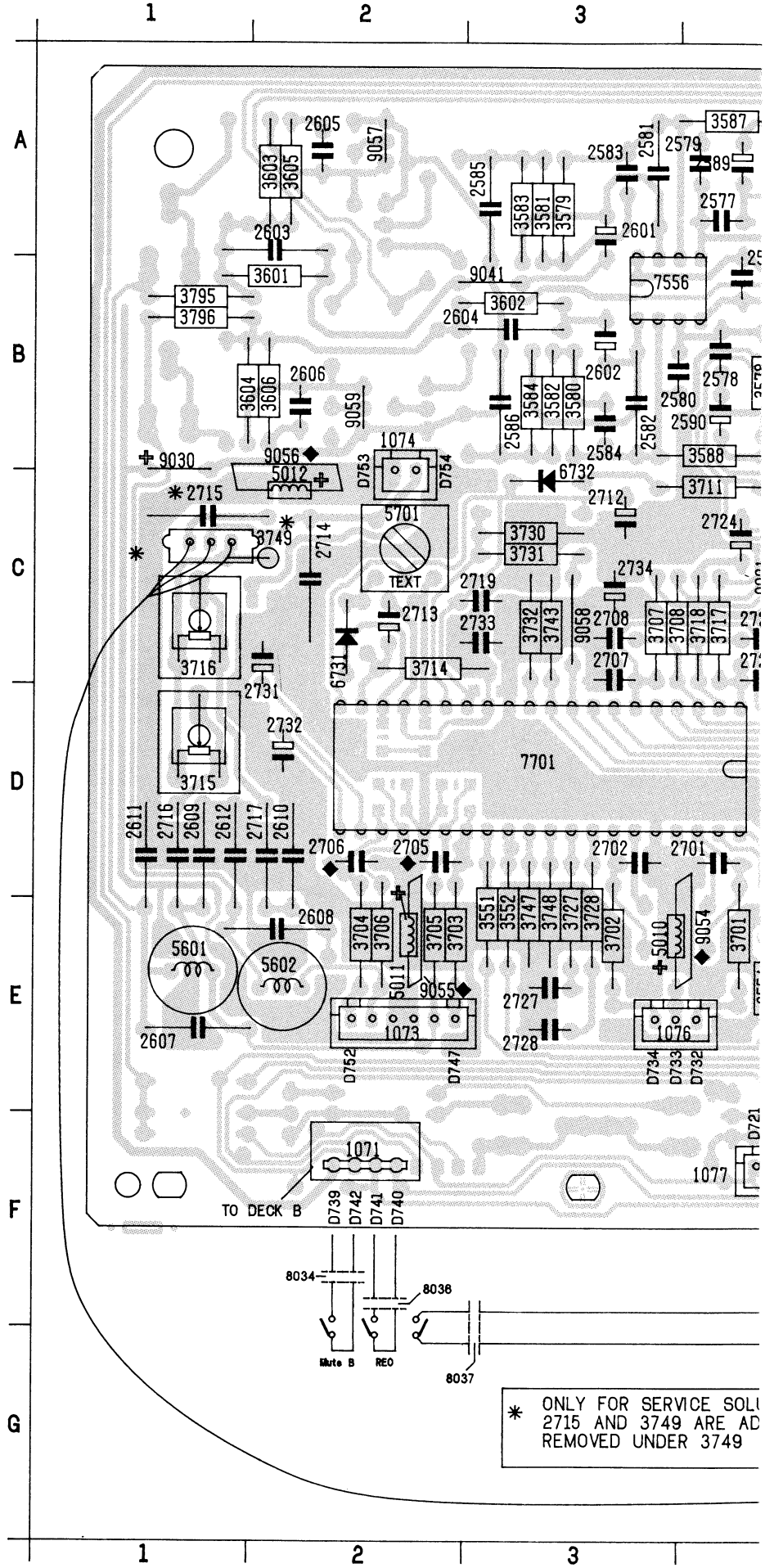

RECORDER BOARD

0072	C 7	2728	E 3	3726	B 8	9050	E 8
1071	F 2	2731	D 2	3727	E 3	9052	D 8
1073	E 2	2732	D 2	3728	E 3	9053	E 8
1074	B 2	2733	C 3	3730	C 3	9054	E 4
1076	E 3	2734	C 3	3731	C 3	9055	E 2
1077	F 4	2736	E 7	3732	C 3	9056	B 2
1078	F 6	2737	E 7	3736	E 6	9057	A 2
1079	E 8	2741	C 4	3737	E 6	9058	C 3
2540	D 8	2742	C 5	3738	E 6	9059	B 2
2551	E 6	2743	C 4	3739	E 7		
2552	E 5	2744	C 5	3742	F 6		
2553	E 6	2745	C 4	3743	C 3		
2554	E 5	2746	B 5	3744	E 8		
2555	C 5	2748	D 5	3745	E 8		
2556	D 5	2749	D 5	3747	E 3		
2557	C 5	2750	D 5	3748	E 3		
2558	D 6	2751	E 5	3749	C 2		
2561	C 7	3541	D 8	3754	D 6		
2562	D 7	3551	E 3	3756	D 4		
2563	C 6	3552	E 3	3757	D 4		
2564	D 6	3553	E 5	3758	D 4		
2566	D 6	3554	E 4	3759	D 4		
2567	C 5	3555	E 5	3763	F 6		
2569	D 6	3556	E 4	3785	E 8		
2570	D 6	3557	D 5	3786	E 8		
2571	C 6	3558	D 5	3787	E 8		
2575	C 8	3559	C 6	3795	B 1		
2576	B 4	3560	C 7	3796	B 1		
2577	A 4	3561	C 7	3797	C 6		
2578	B 4	3562	C 7	3798	C 6		
2579	A 4	3565	C 7	5010	E 3		
2580	B 4	3566	C 8	5011	E 2		
2581	A 3	3567	C 6	5012	C 2		
2582	B 3	3568	D 5	5601	E 1		
2583	A 3	3571	A 4	5602	E 2		
2584	B 3	3572	B 5	5603	E 5		
2585	A 3	3573	A 4	5604	E 4		
2586	B 3	3574	B 4	5605	B 4		
2589	A 4	3575	A 5	5606	B 5		
2590	B 4	3576	B 5	5701	C 2		
2595	B 4	3577	A 4	6706	E 8		
2601	A 3	3578	B 4	6707	D 8		
2602	B 3	3579	A 3	6708	E 8		
2603	A 2	3580	B 3	6710	D 9		
2604	B 2	3581	A 3	6711	D 8		
2605	A 2	3582	B 3	6712	D 8		
2606	B 2	3583	A 3	6731	C 2		
2607	E 1	3584	B 3	6732	C 3		
2608	E 2	3587	A 4	7551	D 6		
2609	D 1	3588	B 4	7552	E 9		
2610	D 2	3593	B 4	7554	A 4		
2611	D 1	3601	B 2	7555	B 4		
2612	D 1	3602	B 3	7556	B 3		
2701	D 4	3603	A 2	7701	D 3		
2702	D 3	3604	B 2	7704	A 8		
2705	D 2	3605	A 2	7705	E 6		
2706	D 2	3606	B 2	7707	E 7		
2707	C 3	3701	E 4	8703	G 8		
2708	C 3	3702	E 3	9002	E 8		
2709	E 6	3703	E 2	9003	E 8		
2710	D 7	3704	E 2	9006	D 6		
2712	C 3	3705	E 2	9008	C 5		
2713	C 2	3706	E 2	9012	D 5		
2714	C 2	3707	C 3	9013	D 5		
2715	C 1	3708	C 4	9014	D 7		
2716	D 1	3709	D 4	9018	A 6		
2717	D 2	3710	D 4	9019	F 9		
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2723	C 4	3716	C 1	9024	D 7		
2724	C 4	3717	C 4	9025	D 7		
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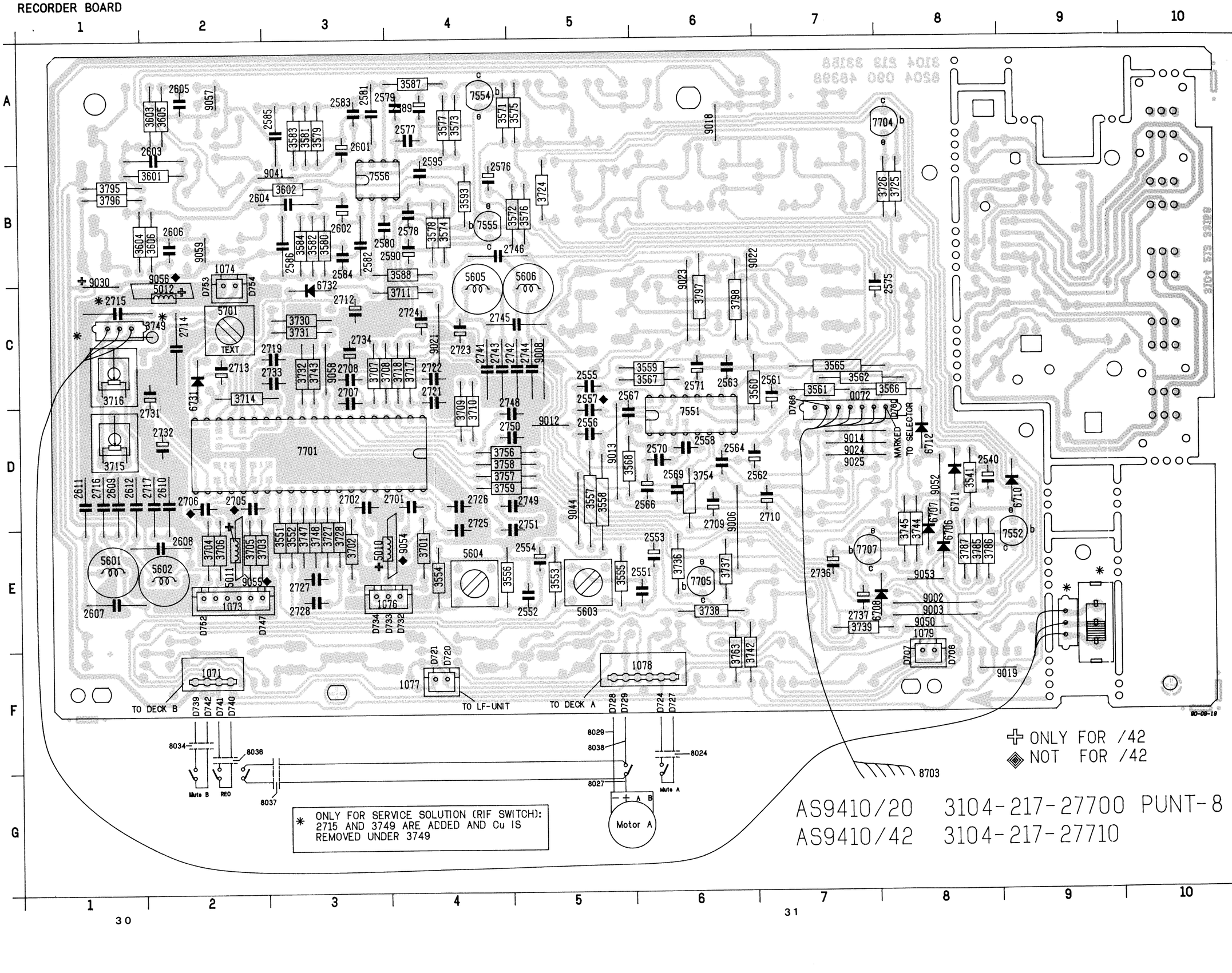
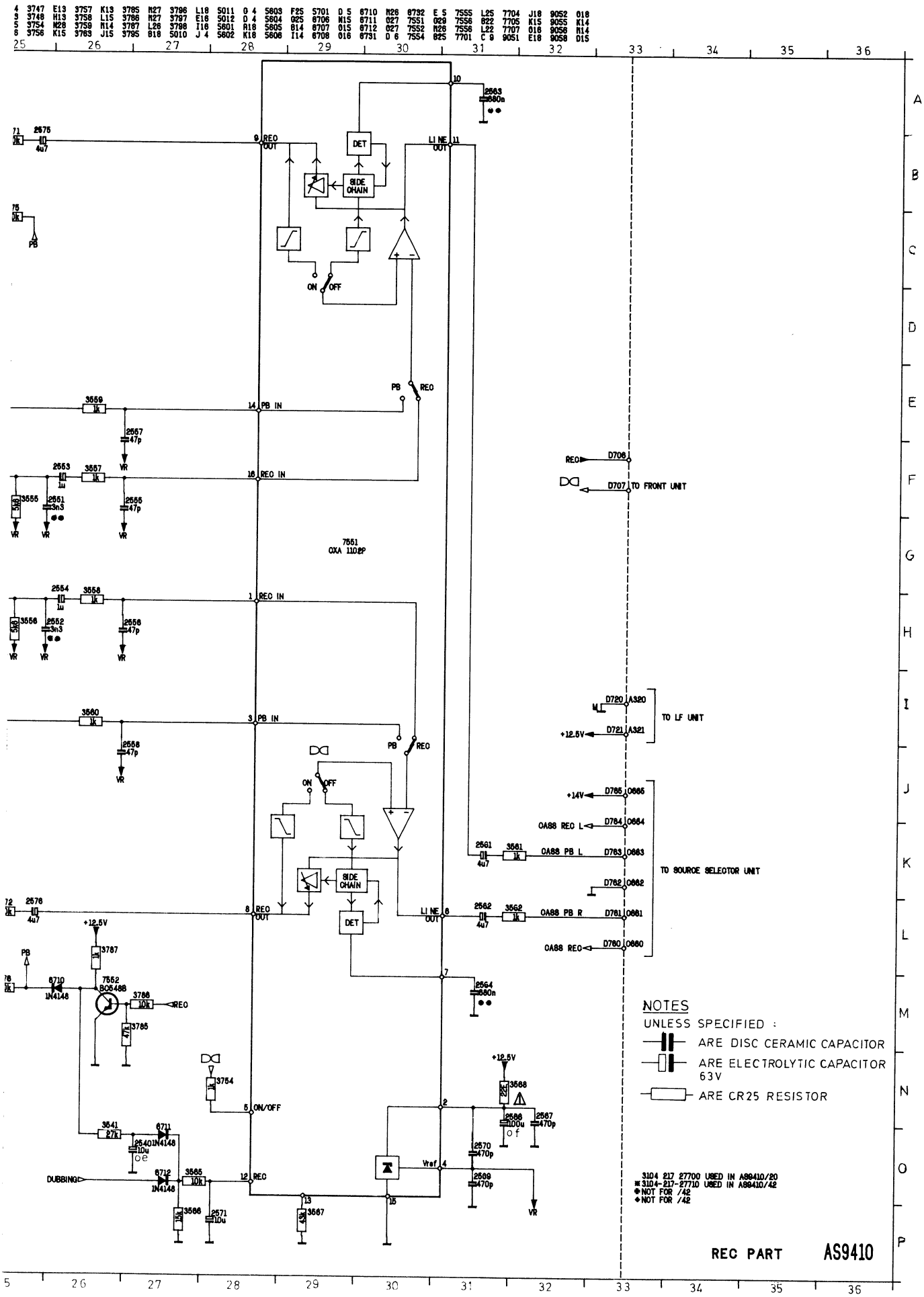
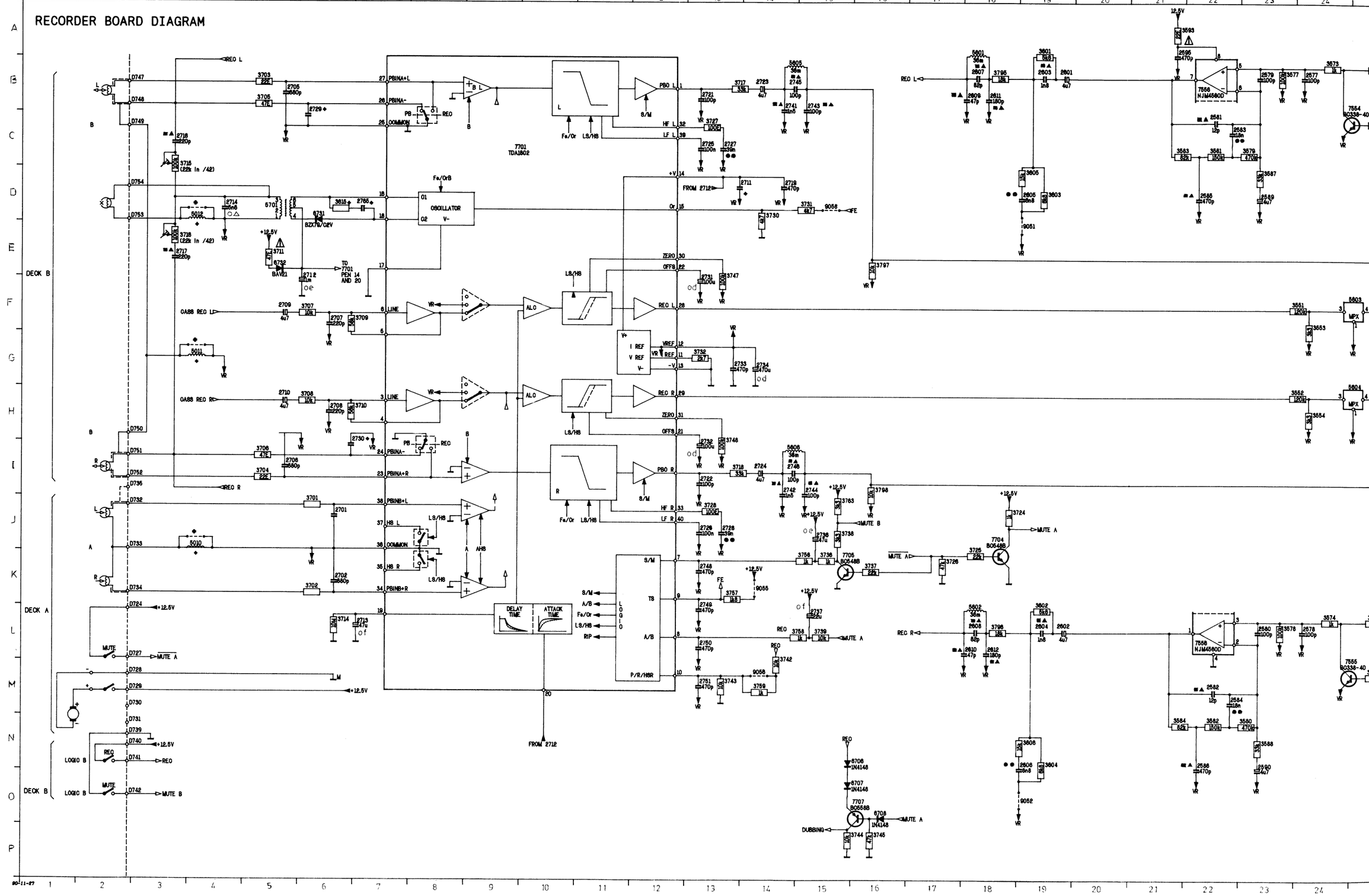


CS 33 877


REC PART AS9410
NOTES
UNLESS SPECIFIED :
ARE DISC CERAMIC CAPACITOR
ARE ELECTROLYTIC CAPACITOR 63V
ARE CR25 RESISTOR
TO FRONT UNIT
TO LF UNIT
TO SOURCE SELECTOR UNIT
7551 CXA 1102P
DET
SIDE CHAIN
ON OFF
PB REC
REC OUT
LINE OUT
PB IN
REC IN
ON/OFF
DUBBING
Vref
+12.5V
+14V
OA88 REC L
OA88 PB L
OA88 PB R
OA88 REC

RECORDER BOARD DIAGRAM



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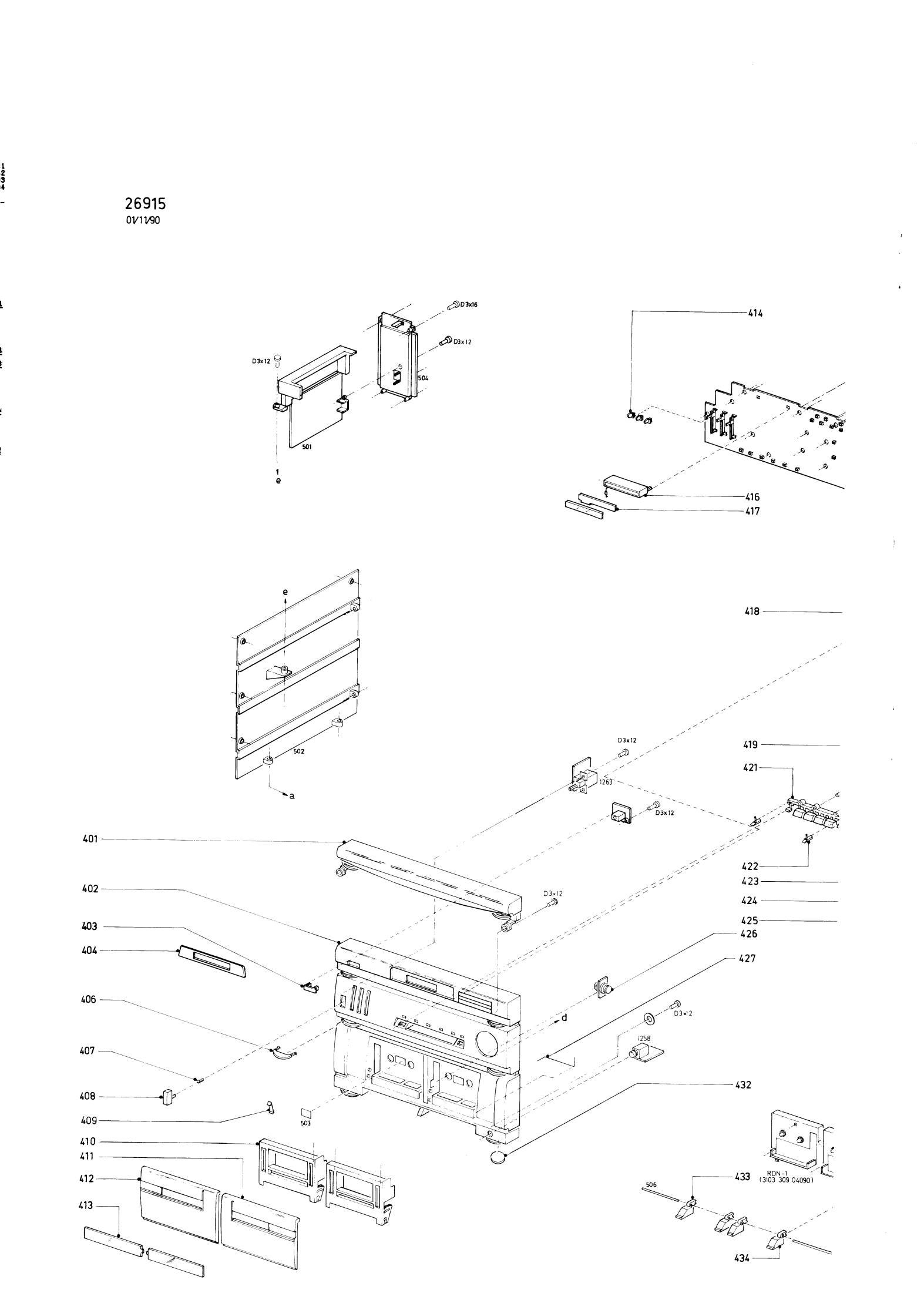
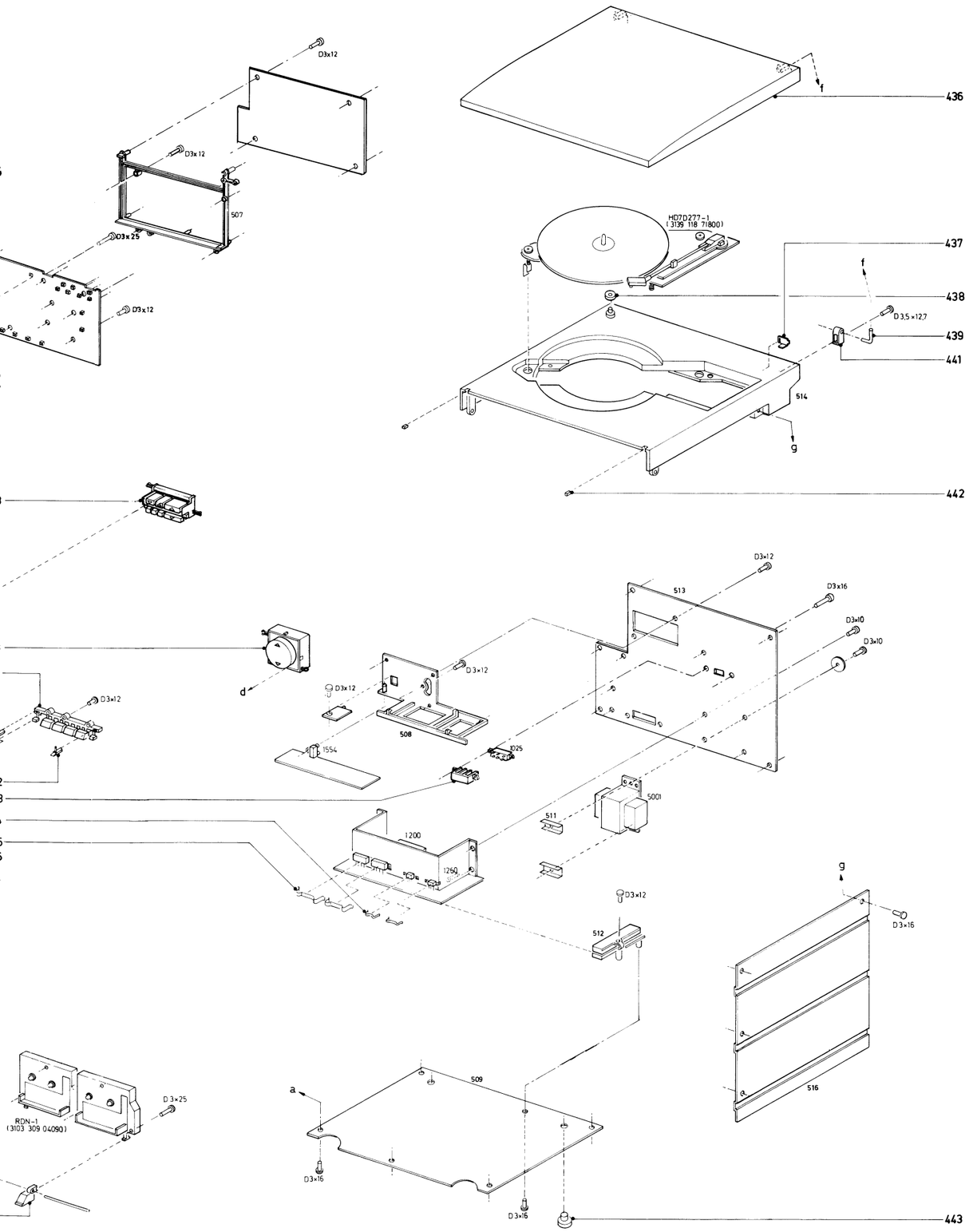
26915
01/11/90





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402	4822 426 51464	416	4822 256 91477	433	4822 410 60551
403	4822 450 61524	417	4822 466 70666	434	4822 410 60552
404	4822 450 61533	418	4822 410 60584	436	4822 462 71645
406	4822 426 60577	419	4822 413 51332	437	4822 460 10589
407	4822 492 52128	421	4822 410 60609	438	4822 466 92642
408	4822 410 60553	422	4822 466 70678	439	4822 417 10631
409	4822 492 52197	423 *	4822 404 21082	441	4822 417 10631
410	4822 443 63037	424	4822 492 63051	442	4822 466 92643
411	4822 426 60597	425	4822 255 41035	443	4822 462 41535
412	4822 426 60598	426	4822 529 10251		
413	4822 450 61516	427	4822 492 70732	IFU	4822 736 21018

* only for -/01/21

		MISCELLANEOUS			
1025	*△	VOLTAGE SELECTOR	4822	277	21483
1100	♦	AERIAL SOCKET	4822	267	31128
1105	*	GRID SWITCH	4822	277	30862
1200		SOCKET SPEAKER	4822	267	31176
1258		SOCKET HDPHONE	4822	267	30968
1263		POWER SWITCH	4822	276	12887
1267	△	FUSE T5A	4822	253	10065
1401		PHONO SWITCH	4822	276	12465
1402		TAPE SWITCH	4822	276	12465
1403		CD/TV SWITCH	4822	276	12465
1404		TUNER SWITCH	4822	276	12465
1405		DBB SWITCH	4822	276	12465
1406		BAND SELECTOR	4822	276	12465
1407		TUNING UP	4822	276	12465
1408		MONO/STEREO	4822	276	12465
1409		PROGRAM MEMO	4822	276	12465
1410		TUNING DOWN	4822	276	12465
1411		PRESET UP	4822	276	12465
1412		PRESET DOWN	4822	276	12465
1420		LCD DISPLAY	4822	130	90816
1421		LAMP 12V 1500mA	4822	134	40965
1422		SOCKET RC	4822	267	31051
1510		VOLUME CONTROL	4822	276	12465
1511		VOLUME CONTROL	4822	276	12465
1554		SOCKET CD/TV	4822	267	30631
1690		DOLBY NR SWITCH	4822	276	12465
5109		CERAM FILTER	4822	242	73546
5110		X'TAL 7.2MHZ	4822	303	50034
5401		RESONATOR	4822	242	73553
5603		FILTER	4822	242	73768
5604		FILTER	4822	242	73768
	♀	AK141/20W	4822	445	10271
	α	AK251/20W	4822	445	10273
	ß	REMOTE CONTROL	4822	218	10326

		CAPACITORS			
2102		CHIP 100pF 5%	5322	122	32531
2103		CHIP 470pF	4822	122	31727
2105		TRIMMER 3-11pF	4822	125	60101
2107		CHIP 470pF	5322	122	32268
2108		CHIP 470pF	4822	122	31727
2109		CHIP 6.8pF	5322	122	32269
2110		CHIP 470pF	4822	122	31727
2112		CHIP 150pF	4822	122	31808
2113		CHIP 1nF	5322	122	34123
2114		CHIP 220nF	4822	122	32927
2115		CHIP 220nF	4822	122	32927
2116		CHIP 22nF	4822	122	31797
2120		CHIP 100nF	4822	122	33496
2129		CHIP 470pF	5322	122	34099
2131		CHIP 1nF	5322	122	34123
2132		CHIP 22nF	5322	122	32654
2133		CHIP 470pF	4822	122	31727
2134		CHIP 220nF	4822	122	32927
2135	#	TRIMMER 3-11pF	4822	125	60101
2135	$	TRIMMER 5.2-30pF	4822	125	60102
2136	#	PP 630V 100pF	4822	121	51288
2137	#	CHIP 22pF	5322	122	32658
2138		CHIP 220nF	4822	122	32927
2139	#	TRIMMER 3-11pF	4822	125	60101
2139	$	TRIM 5.2-30pF	4822	125	60102
2140	#	PP 400V 470pF	5322	121	50999
2140	&	PP 510pF 400V	4822	121	51263
2140	*	PP 560pF 400V	4822	121	51381
2141		CHIP 22nF	5322	122	32654
2142	#	PP 400V 360pF	4822	121	43253
2143	#	CHIP 22pF	4822	122	32482
2147		CHIP 4.7nF	4822	122	33339
2148		CHIP 4.7nF	4822	122	33339
2150		CHIP 22nF	5322	122	32654
2153		CHIP 18pF	5322	122	32965
2154		CHIP 15pF	5322	122	32481
2155		CHIP 820pF	4822	122	33806
2156		CHIP 22nF	5322	122	32654
2158		CHIP 470pF	4822	122	31727
2159		CHIP 470pF	5322	122	32268
2160		CHIP 470pF	5322	122	32268
2161		CHIP 220nF	4822	122	32927
2164		CHIP 5.6pF	5322	122	32967
2165		CHIP 220nF	4822	122	32927
2168		CHIP 3.3nF	4822	122	33891
2169		CHIP 22nF	5322	122	32654
2714		PS 63V 5.6nF	4822	121	50543

RESISTORS

3100		CHIP 22Ω	4822 051 20229
3102	@	CHIP 560Ω	4822 051 20561
3102	*	CHIP 330Ω	4822 051 20331
3103		CHIP 5.6KΩ	4822 051 20562
3107		CHIP 330Ω	4822 051 20331
3109		CHIP 4.7KΩ	4822 051 20472
3110		CHIP 2.2KΩ	4822 051 20222
3113		CHIP 270Ω	4822 051 20271
3114		CHIP 10KΩ	4822 051 20103
3115		TRIMMER 22KΩ	4822 100 11213
3116		CHIP 100Ω	4822 051 20101
3118		CHIP 10KΩ	4822 051 20103
3119		CHIP 10KΩ	4822 051 20103
3120		CHIP 1MΩ	4822 051 20135
3121		CHIP 1KΩ	4822 051 10102
3122		CHIP 1MΩ	4822 051 20135
3123		CHIP 1KΩ	4822 051 10102
3129		CHIP 100KΩ	4822 051 20104
3131		CHIP 0Ω	4822 051 20008
3136		CHIP 4.7KΩ	4822 051 20472
3137		CHIP 4.7KΩ	4822 051 20472
3139		CHIP 100KΩ	4822 051 20104
3140		RST 330Ω 1/8W	4822 050 23301
3144		CHIP 1KΩ	4822 051 10102
3146		PR01 150Ω	4822 053 10151
3148		CHIP 5.6KΩ	4822 051 20562
3149		CHIP 470KΩ	4822 051 20474
3151		CHIP 22KΩ	4822 051 20223
3154		CHIP 33KΩ	4822 051 20333
3155		CHIP 22KΩ	4822 051 20223
3156		CHIP 5.6KΩ	4822 051 20562
3158		CHIP 330Ω	4822 051 20331
3159		CHIP 470Ω	4822 051 20471
3160		CHIP 27KΩ	4822 051 20273
3161		CHIP 0Ω	4822 051 20008
3163		CHIP 680Ω	4822 051 20681
3255	△	NFR25 2.2Ω	4822 052 10228
3256	△	NFR25 2.2Ω	4822 052 10228
3257	△	NFR25 2.2Ω	4822 052 10228
3258	△	NFR25 2.2Ω	4822 052 10228
3295	△	NFR25 12Ω	4822 052 10129
3401	△	NFR25 1Ω	4822 052 10108
3507		POTM 100KB X 2	4822 105 11051
3509		POTM 100KB X 2	4822 105 11051
3511		POTM 100KB X 2	4822 105 11051
3544	△	NFR25 47Ω	4822 052 10479
3568	△	NFR25 22Ω	4822 052 10229
3593	△	NFR25 22Ω	4822 052 10229
3596	△	NFR25 22Ω	4822 052 10229
3599	△	NFR25 100Ω	4822 052 10101
3624	△	NFR25 47Ω	4822 052 10479
3711	△	NFR25 47Ω	4822 052 10479
3715		TRIMMER 100Ω	4822 100 11163
3716		TRIMMER 100Ω	4822 100 11163

COILS

5001	△	TRANSFO' MAINS	4822 146 30863
5102		FM RF COIL	4822 156 30947
5103		FM RF COIL	4822 156 30947
5104		COIL 0.22µH	4822 157 53192
5105		AM IF COIL	4822 156 20816
5106		AM IF COIL	4822 158 60511
5107	#	FERROCEPTOR	4822 526 10466
5107	$	FERROCEPTOR	4822 158 60602
5108	#	AM OSC COIL	4822 156 10459
5108	$	AM OSC COIL	4822 157 51844
5551		FE INDUCTOR	4822 157 53447
5601		COIL 36mH	4822 156 20811
5602		COIL 36mH	4822 156 20811
5605		COIL 36mH	4822 156 20811
5606		COIL 36mH	4822 156 20811
5701		OSC COIL 100KHZ	4822 156 20946

SEMICONDUCTORS

6101		1N4148	4822 130 30621
6102		BB809	5322 130 31684
6103		BB809	5322 130 31684
6104		1N4148	4822 130 30621
6105		1SV149	4822 130 81673
6106		1SV149	4822 130 81673
6107		BZX79-B4V7	4822 130 34174
6131	$	1N4148	4822 130 30621
6133	*	1N4148	4822 130 30621
6292		BZX79C2V4	4822 130 31253
6295		1N4148	4822 130 30621
6301		1N4148	4822 130 30621
6303	△	KBU6D	4822 130 80339
6304		BZX79C11V	4822 130 34488
6305		1N4002	5322 130 30684
6306		1N4002	5322 130 30684
6313		1N4002	5322 130 30684
6401		BZX79C5V6	4822 130 34173
6402		1N4002	5322 130 30684
6410		1N4148	4822 130 30621
6411		1N4148	4822 130 30621
6412		1N4148	4822 130 30621
6413		1N4148	4822 130 30621
6415		1N4148	4822 130 30621
6418		1N4148	4822 130 30621
6420		RCR GP1U520X	4822 130 81254
6435		TLR124 RD	4822 130 31274
6450		TLG124A GN	4822 130 32472
6470		BZX79C12V	4822 130 34197
6474		BZX79C2V4	4822 130 31253
6494		1N4148	4822 130 30621
6521		1N4148	4822 130 30621
6522		1N4148	4822 130 30621
6543		1N4148	4822 130 30621
6545		1N4148	4822 130 30621
6551		1N4148	4822 130 30621
6552		1N4148	4822 130 30621
6553		1N4148	4822 130 30621
6554		1N4148	4822 130 30621
6555		1N4148	4822 130 30621
6556		1N4148	4822 130 30621
6557		1N4148	4822 130 30621

6558		1N4148	4822 130 30621
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6560		1N4148	4822 130 30621
6561		1N4148	4822 130 30621
6562		1N4148	4822 130 30621
6563		1N4148	4822 130 30621
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6565		1N4148	4822 130 30621
6566		1N4148	4822 130 30621
6568		1N4148	4822 130 30621
6690		TLG124A GN	4822 130 32472
6706		1N4148	4822 130 30621
6707		1N4148	4822 130 30621
6708		1N4148	4822 130 30621
6710		1N4148	4822 130 30621
6711		1N4148	4822 130 30621
6712		1N4148	4822 130 30621
6731		BZX79-C2V4	4822 130 31253
6732		BAV21	4822 130 30842
7101		2SC1047	4822 130 60163
7102		2SC1047	4822 130 60163
7103		BC548C	4822 130 44196
7104		BC548C	4822 130 44196
7105		BC558C	5322 130 60068
7106		2SC1047	4822 130 60163
7107		2SC1047	4822 130 60163
7108	#	2SC1047	4822 130 60163
7109	#	BC338-40	5322 130 44779
7110	#	BC548C	4822 130 44196
7112	#	2SC1047	4822 130 60163
7113	#	BC548C	4822 130 44196
7114		BC548C	4822 130 44196
7115		BC548C	4822 130 44196
7116		LM7000	4822 209 71331
7117		CXA1238M	4822 209 73851
7118		2SC1047	4822 130 60163
7119		BC848B	5322 130 41982
7120		BC848B	5322 130 41982
7253	△	AN7161N	4822 209 73356
7254	△	AN7161N	4822 209 73356
7256		TBC548C	4822 130 44196
7301	△	LM317T	4822 209 80591
7303	△	LM317T	4822 209 80591
7304		TBC548B	4822 130 40937
7305		TBC548B	4822 130 40937
7400		TMP47C221-902-B	4822 209 62996
7401		BC338-40	5322 130 44779

7403		NMC9313BN	4822 209 60502
7409		TBC548B	4822 130 40937
7410		TBC548B	4822 130 40937
7411		TBC548B	4822 130 40937
7413		TBC548B	4822 130 40937
7420		TBC558B	4822 130 44197
7421		TBC548B	4822 130 40937
7422		TBC548B	4822 130 40937
7435		TBC548B	4822 130 40937
7450		TBC548B	4822 130 40937
7451		TBC548B	4822 130 40937
7452		TBC549C	4822 130 44246
7453		TBC549C	4822 130 44246
7456		TBC548B	4822 130 40937
7460		TBC548B	4822 130 40937
7461		TBC548B	4822 130 40937
7462		TBC558B	4822 130 44197
7470		BC327-40	4822 130 41327
7471		TBC558B	4822 130 44197
7501		TBC549C	4822 130 44246
7502		TBC549C	4822 130 44246
7510		TC9153AP	4822 209 71337
7511		NJM4560D	4822 209 83274
7512		TBC548B	4822 130 40937
7514		TBC558B	4822 130 44197
7515		TBC548B	4822 130 40937
7516		TBC548B	4822 130 40937
7517		TBC548B	4822 130 40937
7518		TBC548B	4822 130 40937
7519		TBC558B	4822 130 44197
7550		NJM4560D	4822 209 83274
7551		TBC548C	4822 130 44196
7551		CXA1102P	4822 209 63558
7552		BC548B	4822 130 40937
7552		TBC548C	4822 130 44196
7553		TBC548C	4822 130 44196
7554		BC338-40	5322 130 44779
7555		BC338-40	5322 130 44779
7556		NJM4560D	4822 209 83274
7602		NJM4560D	4822 209 83274
7695		TBC548B	4822 130 40937
7699		HEF4013BP	4822 209 10248
7701		TDA1602A/N3	4822 209 62372
7704		BC548B	4822 130 40937
7705		BC548B	4822 130 40937
7707		BC558B	4822 130 44197

$ not for -/00/20/22/25/40/45 only
ß not for -/40/45/48 only
@ not for -/01/21 only
♦ not for -/22 only
for -/00/20/22/25/40/45 only
& for -/10/28/30/48 only
♀ for -/20/22/25/28 only
* for -/01/21 only
α for -/21/30 only